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The Role of Government

in

Industrial Mobilisation

for

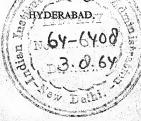
National Defence

Vith the best compliments of Indian Institute of Public Administration. For favour of meriew

REPORT OF A SEMINAR

Conducted by

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION
Andhra Pradesh Regional Branch



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INDIAN INSTITUTE OF PUBLIC ADMINISTRATION
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CHAPTER I

INTRODUCTION

The Seminar on Industrial Mobilisation for National Defence held on 13th and 14th April, 1963, was the first major project undertaken by the Andhra Pradesh Regional Branch since its establishment in 1959. The decision to hold a seminar was made at the General Body meeting of the Regional Branch held on 17th November, 1962, at Hyderabad. At the same meeting, it was decided to appoint a Study Group to go into the questions of the Role of Government in the industrial mobilisation for national defence. The Study Group consisted of Messrs. V. K. Bawa, P. L. Bhandari, T. G. V. Naidu, Rolf P. Lynton, and M. Sirajuddin. Shri T. L. Sankar and Shri K. C. Rao were later co-opted. It was felt that even in normal times, industry had to face major problems in dealing with government departments, which were tied down by excessively complicated procedure. In time of emergency, the problem would certainly become more acute, due to the restrictions imposed by the government on the utilisation of raw materials, the provision of finance, and on the utilisation of power, water and land. Restrictions on the employment of labour would also require review in the context of the emergency, and measures would have to be devised to increasing productivity in essential industries

During the short period between the General Body Meeting and the Seminar, the Study Group held a number of meetings in order to study different aspects of the problem. During the initial meetings, military officers of the Ordnance Corps and the Electrical & Mechanical Engineers were invited to express their views. These meetings were extremely useful to the members of the Study Group in gauging the short-term and long-term needs of the Ordnance and of the E.M.E. An interim report was prepared, detailing the steps necessary to enable the industrialists of the State to meet the immediate short-term needs of the military authorities. Some of the views expressed in this

report were brought out during the All India Industrial Exhibition at Hyderabad in January 1963, in the pavilion of the Small Industries Service Institute, in order to enable small manufacturers to meet the needs of the army.

The Study Group next arranged a series of meetings with experts in the fields which were most affected by the emergency. Several meetings were held on problems of power, water and land, raw materials, and finance and marketing, during which Government policies and administrative obstacles which prevent industry from helping the national effort came in for some frank and honest criticism, and a number of constructive suggestions were put forth. The Study Group, in reviewing the work of all these meetings, felt that it would be necessary to prepare for discussion at the seminar, working papers on the following four topics:

- 1. Power, Water and Land.
- 2. Raw Materials, Fuel and Transport;
- 3. Finance and Marketing; and
- 4. Technical Skill and Productivity.

Throughout the preliminary stages of the work and till the close of the Seminar, the Study Group received the valuable guidance and support of the Chairman, Shri M. P. Pai.

A great deal of care was exercised in choosing the person to write the working paper for each topic. It was felt that the working paper, while taking account of the discussion held in the group meetings, should propose certain solutions to be placed before the Seminar for discussion. The paper should be written by a person who could speak authoritatively on the subject, but was not committed to Government policies. The following gentlemen agreed to write working papers on the topics mentioned:

B. K. Nehru, Chairman, Vazir Sultan Tobacco Co., Ltd., Hyderabad ... Power, Water and Land.

Rama Rao, Macherla, Biochemicals & Synthetic Products Ltd., Sanatnagar, Hyderabad. Raw Materials, Fuel and Transport.

Satya Dev,
Managing Director,
State Bank of Hyderabad.

Financial Assistance and Marketing.

P. Narasaiah,
Director, Small Industries
Service Institute,
Hyderabad.

Technical Skill and Productivity.

The Chairman, at the suggestion of the Study Group, requested officials dealing with government policies in the fields of discussion, to write a factual account of the government policy in these matters and what it proposed to do in the context of the emergency.

The following factual articles by Government officials were printed in the *Souvenir* brought out by the Regional Branch on the occasion of the Seminar:

- 1. Power for Industry in Andhra Pradesh by S. A. Quader, I.A.S., Secretary, P.W.D., Govt. of Andhra Pradesh.
- 2. Role of the Government in the Distribution of Raw Materials by Syed Ali, I.A.S., Secretary, Industries, Govt. of Andhra Pradesh.
- 3. Industrial Finance in Andhra Pradesh by B. L. Oates, LAS., Director of Industries & Commerce, Govt. of Andhra Pradesh, Hyderabad.
- 4. Development of Small Scale Industries in India by P. Narasaiah, Director, Small Industries Service Institute. Hyderabad.

- 5. Labour Policy in Andhra Pradesh in Peage time and in the Emergency by E. V. Ram Reddy, I.A.S., Labour Commissioner, Government of Andhra Pradesh.
- 6. Technical Education & Training in Andhra Pradesh by C. V. D. Moorthy, Director, Technical Education, Govt. of Andhra Pradesh.

These articles, along with the working papers, were printed in a brochure and distributed about ten days in advance of the Seminar to all those who were invited to participate in the discussions.

Invitations to the Seminar were sent to about 100 selected officials and non-officials from all over the state of Andhra Pradesh. The list was drawn up in such a way as to provide a balanced representation of Government officials concerned with industry, representatives of Corporations and large industrial concerns in the state, representatives of various all-India industries like coal, cement, steel, tobacco, paper, sugar etc. and bank officials and managers.

Shri H. V. R. Iengar, Chairman of the National Productivity Council and Chairman of Parry & Co., Ltd., Madras, inaugurated the Seminar.

The Governor of Andhra Pradesh, General S. M. Srinagesh, who is also the President of the Regional Branch, presided over the inaugural function in which Dr. M. N. Lakshminarasayya, Minister for Industries, Andhra Pradesh, also participated.

The Seminar lasted two days, of which the major part of the first day was devoted to group discussions. The reports of the various groups were circulated to the delegates at their homes early the next morning, and the plenary session took place after lunch, to give them time to study the reports of all the groups. A detailed programme of the Seminar, a copy of which is attached as Annexure I, was drawn up by the Study Group and was circulated to the invitees along with the invitation. A note on the procedure for the group discussions, the circulation of the reports and the open session was also circulated for the guidance of the members at the time of the inaugural function.

Our experience in planning the Seminar indicates that, with all the efforts of willing volunteers, it is essential to have a regular office, and for a responsible official to personally check that letters go out properly stamped and addressed, that replies are received in time, that working papers are properly printed and distributed, etc. This preliminary stage of the Seminar should be completed at least two weeks before the date of the Seminar itself, to allow for postal delays, and other mishaps. If there are participants from other cities, it should be completed a month in advance.

The Chairman held a Press Conference a few days before the Seminar, during which a Press Note was released, explaining the object of the Seminar, the method of work, and the nature of the working papers prepared for discussion. This preliminary briefing of the press enabled the Seminar to get valuable public notice and interest.

Necessary arrangements immediately before the Seminar were made by the Study Group with the help of the members of the Executive Committee of the Regional Branch. As the Regional Branch had no office, the duties allotted to various members had to be undertaken from their own offices or from the office of Shri T. G. V. Naidu, who generously placed his office and staff at the disposal of the Study Group during the last few days. The major items of work were the following:—

- (1) Invitations to participants, and circulation of factual and working papers.
- (2) Invitations to the inaugural function.

- (3) Invitations to lunches.
- (4) Preparation and distribution of the Souvenir.
- (5) Reception service for visitors.
- (6) Arrangements for the inaugural function (hall, microphone, tape recorder etc.).
- (7) Secretariat arrangements at the meeting hall. (Provision of steno-typists, clerks and peons, cyclostyling of the reports etc.).

The above work could be completed in time only with the most strenuous efforts of the members of the Study Group and other volunteers, including a number of men and women students of the Public Administration department of the Osmania University, who were available at Jubilee Hall throughout the Seminar for various voluntary duties.

The Minister for Industries entertained the delegates to lunch on the first day and the Federation of Andhra Pradesh Chambers of Commerce and Industry on the second day. These occasions gave the delegates an opportunity to meet informally, and thus proved both pleasant and useful.

The Speech by Shri H. V. R. Iengar at the inaugural function provided the key-note for the Seminar and helped the delegates in focusing their attention on the basic points at issue, namely, the needs of defence, the obstacles facing the industrialists who sought to contribute to the defence effort, and the difficulties facing the Government officials. His talk brought out some of the basic defects of Government procedure and pointed the way to further work in the field of Public Administration.

The Chairman, Shoi M. P. Pai, gave a summary of the developments in regard to industrial mobilisation for defence. beginning with the first World War, and pointed out the lines on which the work could be done in future. The Governor and

the Minister for Industries welcomed the delegates and gave them useful advice as to how their deliberations should proceed.

The Chairman, Shri M. P. Pai, presided over the plenary session on the second day. There was a free and frank discussion on the reports of the various groups and the reports were adopted with a few modifications. The following are some of the important points which emerged out of the reports of the Study Group and the discussion:

The Provision for power in the Third Plan should be increased from Rs. 68 crores to Rs. 98 crores and steps taken to plan the long-run requirements as well as the short-run, and eliminate procedural delays. A revolving fund of Rs. one crore should be set up to develop land for industries. A Planning and Development Cell should be set up in the Directorate of Industries and Commerce to allot scarce raw materials and check their proper utilisation. The procurement of defence stores should be decentralised to the Small Scale Industries Development Corporation at the state level.

Steps should be taken to provide additional finance for industry by permitting the Industrial Development Corporation to enter the money market and draw on the Refinance Corporation, as well as by lowering the statutory deposit limit by 5%. Utilisation audit should be introduced for the funds allotted to the Co-operative sector.

A non-governmental or semi-governmental consultant service was required in each state, charging fees for expert advice on all aspects of industrial problems. There should be regular interchange between the staff of training and industrial units. Apprenticeship should be made a part of industrial training, and the length of courses reduced by six months to two years by making them more intensive.

During the discussion at the plenary session, references were also made to an important point brought out by Shri

Iengar, viz., the need to galvanise the resources of the administration to the needs of making quick decisions and the simplification of procedures. The Chairman suggested that perhaps another Seminar be arranged for the purpose, and the suggestion met with wide approval.

The agreed conclusions of the Seminar were issued to the press in the form of a press release at the close of the Seminar. These conclusions are now reprinted in Chapters III to VI of this report, along with an introductory statement by the Rapporteur of each group. This report is intended to bring to the notice of the Government of India, State Governments, industrialists (both in the public and private sectors) and others, the recommendations of the seminar, which were arrived at after considerable preparatory discussion. The report will also serve as a record for the participants and for institutions which are concerned with the implementation of the recommendations.

It is also hoped that the record of the Seminar will be of use to those in the field of Public Administration and others who intend to organise group discussions and seminars in future. The organisers of the seminar feel that the technique they have adopted is capable of application also to other seminars and discussions, and that some of the mistakes they have made can perhaps be avoided by using this as a guide.

In conclusion, the Regional Branch would like to express its sincere thanks to all who took part in the discussions, and to all those who contributed their labours in making the Seminar a success. A list of participants is attached as Annexure II, but this list does not include many who contributed substantially to the success of the Seminar. Special thanks are due to Shri H. V. R. Iengar for his thought-provoking inaugural address, and to Shri B. K. Nehru, Shri Rama Rao Macherla, Shri Satya Dev and Shri P. Narasiah, for their working papers, which formed the basis of discussion in the groups. Unfortunately, Shri Nehru and Shri Satya Dev had to be away from Hyderabad at the time of the seminar, but their stimulating papers: provided some compensation for their absence.

The Regional Branch has received many enquiries about membership from individuals and institutions, including business firms. A statement of the aims and activities of the branch is attached as Annexure III for the benefit of those who wish to keep in touch with its activities. The branch hopes to set up an office shortly. Once this is done, the branch will be in a position to arrange further seminars of this nature. One, immediately in prospect, is on the reorganisation of the administration machinery at the State level on the lines indicated by Shri H. V. R. Iengar in his inaugural address.

V. K. BAWA.

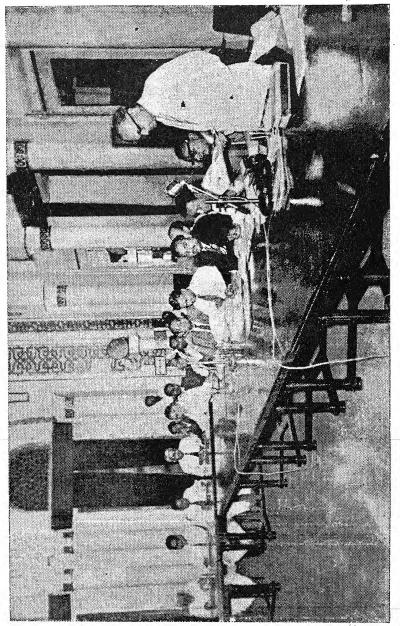
CHAPTER II

INAUGURAL FUNCTION

(i) Address by Shri M. P. Pai, Chairman, I.I.P.A., Regional Branch

Before I say anything else, I would like to extend a warm welcome to all of you and to hope that particularly those who will participate in this Seminar will find the formal papers of value and the discussions interesting and rewarding. I would also be failing in my duty if I did not offer our grateful thanks to Gen. Shrinagesh, Governor of Andhra Pradesh, who is also the President of this Regional Branch of the Indian Institute of Public Administration, for having agreed to preside over the deliberations of the opening session. Gen. Shrinagesh, after a distinguished career in the Army, organised the working of the Administrative Staff College of India at Hyderabad, which now has an established position as a training and orientation stitute in the East for senior administrators. Most of the credit for its present status goes to him. Gen. Shrinagesh's interest in connection with this Branch of the Indian Institute of Public Administration and in particular his presence here to-day is a source of inspiration and encouragement, which all of us appreciate.

Mr. H. V. R. Iengar, who will inaugurate this conference, needs no introduction to you. He made his mark as an administrator some twenty years ago when he was Finance Secretary of the erstwhile Bombay State and established a reputation in the field of Public Finance and Banking when he demitted office as Governor in the Reserve Bank a few months back. He has now entered the private sector in one of the leading industrial houses of the South of India where his rich gifts and varied experience are now harnessed to industrial production in various fields. We could have found no more suitable person to initiate and guide a discussion of the various problems which will be dealt with in this Seminar. On behalf of all of you I would welcome him and



Shri M. P. Pai addressing the Plenary Session.

express our appreciation of his having spared some of his valuable time for us.

This Regional Branch of the I.I.P.A., like its parent body, has the object of promoting study of public administration with special reference to the machinery of Government. This is the second seminar which is being held under its auspices. Our last one on the "Emerging Role of the District Officer" was held in December 1961 and many of you will remember how interesting it was and recognise the impact of some of its conclusions on the administrative set-up in the State. No doubt, an association like this is primarily meant for an academic study of problems of administration and it is not to be expected as a matter of course that such discussions will have any very immediate results of practical value. Nevertheless, our last Seminar did produce such results of lasting benefit. The present Seminar is equally topical against the background of the situation we find ourselves in on account of the recent and totally unexpected military adventure by a nation whom we had always regarded as a friend and whose territorial borders adjoining ours we had regarded as peaceful and not worth the trouble and expense of military defence. This Seminar will deal with some problems of Defence production, which the situation, created by China, demands. Nevertheless let us hope that what has happened is only the result of a mental aberration of those who guide the destinies of China today and that eventually the problems we shall discuss will remain academic ones. If, however, unhappily, the political situation of our Chinese borders continues to be unsettled, let us equally hope that we shall make a humble contribution to the defence of these frontiers.

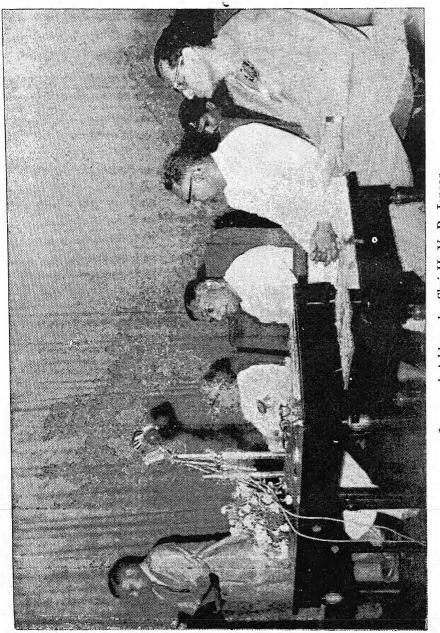
Industrial mobilisation for National Defence is not something new to this country which, during the two World Wars, has had the experience not only of gearing its industry and economic resources to defence production, but also of setting up on established lines, production needed to sustain modern warfare. The significance of Indian Industry in relation to Defence production was immediately recognised even during the First World War though the country was then industrially at an almost

primitive stage. The Indian Munitions Board was set up soon. after the break of hostilities between the United Kingdom and France and Germany in 1914. This Board was the main agency of supply of war-materials during 1914 to 1918. The Contracts Directorate and the Indian Stores Department were, however, created towards the end of the war for the purposes of purchasing goods not directly produced by the then Government of India. The need of permanance for such an Organisation was. recognised in 1922 when the Indian Stores Department organised. This Department later became the Department Supply on the outbreak of the Second World War. The crisis of September 1938 which produced the so-called Munich Settlement led to a quickening of war preparations in every country and an ad-hoc Committee, the "Dow Committee", was set up in July, 1939. On the basis of its report, the War Supply Board and the Supply Department were created on the 26th of August. 1939. The complexity of War requirements under present day conditions led soon after to the setting up of a number of agencies to enlarge various broad categories of production. In addition to the Directorate-General of Supply, we soon had Directorates-General for Munitions, Production, Aircraft and Shipping. Under these Directorates-Gerneral, war requirements proceeded in parallel along three broad lines of planning, of production and of purchase. As defence demands increased so also the purchasing sections were strengthened with technical Directorates which attended to the expansion and diversion of existing industrial facilities and the establishment of new factories. In addition to this, a system of educational contracts was set up by which producers, new to the field, were given contracts even before their ability was fully established with some protection for failures to produce goods upto specifications for reasons beyond the control of the manufacturer — whether on account of inexperience or lack of necessary skills and techniques or shortcomings in respect of machinery and trained men. In 1939 India's assets for the production of munitions and enlarging stores were a young if flourishing steel industry, half-a-dozen Ordnance factories and a few hundred relatively small Trade and Railway Engineering Workshops. The more obvious weaknesses were a lack of a nonferrous metal industry, no general engineering workshops, equipment and staff for mass production and no Machine Tools Industry. By the end of the War, however, the number of Ordnance Factories had tripled, their crew increased from 15,000 to over 100,000 and production had been established in the fields of nonferrous metals, aluminium, alloy metal, Machine Tools, alloy steels, high carbon tool steel and even bullet-proof plate and ferrosilicon. The story does not end there, but this is neither the time nor the place to complete it. What is significant is that the value of contracts placed by the Supply Department alone went up from 11 crores in 1938-39 to over 261 crores in 1942-43. By 1942, India was indeed the sole source of all supplies to the near and Middle East and almost wholely responsible for all stores, inclusive of food, through the E.G. Supply Council.

Modern War needs something like 1,00,000 items of production. Of this, India at the peak, was producing about 50,000 inclusive of 20,000 items that had not been manufactured at all in India before 1939 and had been thought beyond her capacities.

If I mention all these details, it is for two purposes. Firstly, those who participate in this Seminar should be fully conscious not only of the country's requirements in the matter of war production, but also of the vast store of knowledge, experience and information, which are already available in the Supply Department of the Government of India. Secondly, no wrong conclusions should be drawn from any existing shortages in the market which frequently are not due so much to lack of production, as to the demands which have already been made with the connected sources of production by the Government of India, Supply Department leading to the booking of all capacity in a number of lines. Besides, when peace-time production is altered to suit war-time demands, various shortages and bottlenecks arise and it is no simple task to convert and expand a country's industrial capacity from the relatively simple needs of peace to the specialised and everchanging demands of War.

The main problem before this Conference is to decide how best the means of production in this State can be developed rapidly, geared to immediate requirements, and dovetailed into the purchase and production programmes of the Government of India. The whole picture is not before us and for that reason attention has to be devoted to broad problems like those classified into the four groups which are on the Agenda. In other words, this Seminar should examine how best the Government of the State and the private sector of industry can, in co-operation, create the conditions in which the immediate and the changing demands of the defence forces can be met. No War production plan can achieve immediate or even ultimate plans and standardisation. The requirements will change almost every day and all programmes will be subject to subtractions and additions, and expansions and contractions from day-to-day. Immediately, one can only endeavour to set the base on sound lines, and let the superstructure arise as demands and the time dictates.



Inaugural Address by Shri H. V. R. Iengar.

(ii) Address by Shri H. V. R. IENGAR.

Your Excellency and Gentlemen, I am much beholden to Mr. Pai for the very kind way in which he introduced me to you. When I got a letter from him some weeks ago inviting me to inaugurate this conference, I was naturally very highly gratified bit also not a little surprised that he should have to dig amongst the fossils to get somebody to inaugurate this conference. I retired some time ago and there is a concept in our country that once a man is retired, he is as good as dead. In fact, I have been working in my spare time on a formula which I propose to put forward to the world in due course, and which might assume the same status as Parkinson's Law. The formula deals with the question of what may be called the worthwhileness of listening to a man depending on his particular position. If he is retired and is doing nothing, the formula rates him as zero. If he is still working, the rating is anything from zero to 100, depending on the particular job which he holds. However, I am a little foxed about it because I now hold a post as Chairman of the National Productivity Council which is neither fish nor flesh. It is not a Government job; it is not a private job; it brings me into very close contact with the Government; it brings me ino very close contact with the private sector. I am still working on the formula as to how to fit in a man holding this particular post in the formula. The advantage of this post is, as I said, that it brings me into very close contact today with both the Government and private industry and perhaps this fits me to express some views on the problem before the Seminar. But let me make it clear at once that I have no particular views to offer on the special problems posed before the Seminar, viz., how to make a contribution in the State of Andhra Pradesh to the defence effort of the country.

It is only last night that I read, for the first time, some papers that are going to be presented before this Conference. They are very interesting and, from the local point of view extremely important, and I hope some solutions will be found. I imagine, for instance, that on that paper by Mr. B. K. Nehrt on water supply in the city of Hyderabad, voluminous notes

could be written by the Secretariat officials justifying the existing state of affairs. In fact, having spent the greater part of my own life in the Secretariat, I can, if, Mr. Pai will permit me, produce a masterly note explaining why the water supply cannot be improved more rapidly than is being done at present. I can say, for instance, on behalf of the Andhra Pradesh Government (whose spokesman I am not now), that there are difficulties, that the Planning Commission has not been able to give allocations, that the Economic Affairs Ministry has not been able to give the necessary foreign exchange, that this is in short supply, that is in short supply, and so on and so forth. All this is perfectly true and all that has got to be tackled. But I would like to get away from this to a more fundamental problem of administration because I am convinced that while all these difficulties undoubtedly exist, and undoubtedly are serious and hamper our production, there is something even deeper than all this which we have to meet. Otherwise, our lives for many years to come in the country will be one of great frustration. I refer to the whole problem of whether the administration in the country is geared up for the sort of job which it has now got to face. Now, there are various angles from which one can discuss this problem. I propose, in order to highlight the nature of the problem, to start off by giving a few examples of what is happening today. It is only by a knowledge of facts and an analysis of facts that we can come to a conclusion as to what the solution should be.

The great Lord Keynes wrote at the beginning of the last world war, that the first quality required in an emergency is lucidity, and the second quality is courage: and I think it is necessary that we should analyse the present problem and see to what extent Government is geared up for the job which has to be faced. Now, I said that I would give some examples. I am not giving you those examples in order to criticise Government. Indeed, I am quite certain that if I were in Delhi today I could not do better than the people who are there now. So, it is not merely because I am a little outside the ring that I am giving these examples but I think you ought to be aware of

what is happening and it is purely from the point of view of factual analysis that I am giving these examples. I have a friend of mine, an Englishman, who is running a big factory in South India. During the last war he was in charge of a factory producing military aircraft. In other words, he is a person who is accustomed—who is professionally accustomed—to producing ammunitions of war. And the nature of his own factory is such that it is easily possible for him to produce some of the weapons required by the Defence Forces. So he rushed off to Delhi in the middle of November and told them that he was prepared to make such and such equipment for the army. He could easily do so: and they asked him for estimates. He said "In order to make the estimate, I shall want such and such raw materials which are not available in India and I assume that I can prepare the estimates on the basis that these will be provided by the Government". He was asked to go ahead. So he prepared the estimates working overnight. That was in the month of November. Well, he was summoned to Delhi sometime last month, in the month of March, and he was told that they could not give him the raw material which was in short supply, and would he apply to the import control people and do the best he can and give out estimates on a revised basis about this? Now that is a good five months after he made the original tender. I don't want to dilate on this because anybody who has anything to do with import control knows what the difficulties are in the way of getting licences for scarce raw materials.

I give another example: another firm of which I have intimate knowledge, had experience during the last war of making dehydrated foodstuffs for the army. The technique is changed and we now call it accelerated deep freezing. But, breadly speaking, it is in the same line in the country. Well, they dashed off to Delhi, again, in the middle of November and said they had people who had experience of this and could they do something about it? In the meantime, they sent off telegrams all over the place. They got information from the U. K. about the latest practices there and

they were all prepared and geared up to do something quickly about it. After getting all the information that was available, they sent up somebody to a senior officer in Delhi and he said "Well, we will let you know in case we want anything from you". But they are still letting the firm know and the firm is still waiting to know what the demands are.

I cite a third example and I would like to repeat that I am not doing this in any censorious spirit but purely as a factual analysis. The third example I can give deals with the manufacture of an important metal. One of the things that we will require in very large quantities is aluminium, particularly because of the great shortage of copper in our country. Now, we have the bauxite under the ground. We have a fair amount of power in certain parts and more power is being generated and it is just a question of digging the bauxite, using power and a few other raw materials which are not very difficult to get and converting all this into aluminium. However, we have the strange spectacle of two State Governments not willing even to talk to each other on the subject. The bauxite is in one State and the bulk of power is in the other State, and the two Governments are not on talking terms and the Central Government has not been able to do very much about it.

Now these examples show that, at the moment, the Central Authority in the country has no very precise knowledge of what is required trom industry. The result is that although a large number of people are most anxious to do things, they are not able to do anything for the simple reason that there is some lack of Central Planning in the field of Defence requirements.

Incidentally, may I say that when I talk of the war effort I am not talking only of munitions of war because it is the essence of the Government of India plan that not merely should the country devote its attention to the war effort but that it should not disengage itself from the normal development efforts and in fact, when we are spending lots of money on defence, it is absolutely essential that we should turn out a large quantity

of goods for civil consumption also. Otherwise, there is going to be raging inflation. So the task of industry is to produce not merely weapons of war but also things required for the civilian consumption.

Now, one could give scores of examples and one could easily get frustrated and one could come to the conclusion that things are absolutely terrible and nothing is ever happening in this country. I indeed heard some people compare the situation with what happened in the U.K. in 1939 and what happened in U. S. in 1941. But, of course, such comparisons are wholly fallacious and misleading. The United States, during the last war, produced in five years some 300 thousand planes and they produced very nearly 100 thousands tanks and it is fascinating to read the published documentation about the whole organisation of supply in the U.S.A. during the last war. But, as I said, it is wholly misleading to compare our situation with the situation that developed in those countries for a variety of reasons. Basically, theirs was a highly developed technology. If it was essential to produce rapidly a very large number of aircraft and tanks, most of the resources required were within their own jurisdiction, they had the machine tool industry, they had the steel industry, they had the metal industry, they had the technicians and they could very easily develop power. They could produce all the dynamos and generators, transformers and switchgear in their own country, with the consequence that it is just a question of organising what was in existence within the country. In our case, in spite of the very impressive list read out by Mr. Pai of what happened during the last war, the truth of the matter is that today our industrial apparatus is still rather sketchy and imbalanced. There are so many things that we want to do and which we cannot do because essential bits and pieces have got to be imported for which we have not got the foreign exchange.

I remember, for instance, in a factory producing trucks for the Defence Department, 297 trucks are on the assembly line. They require just one single part to be fitted in before the trucks could be moved out and made usable but that part is not yet being made in the country. It was not considered necessary to produce it because it was uneconomia to do so. The Exchange Control Authorities have not in time provided the foreign exchange for importing that particular part. The result is that 290 and odd trucks are standing on the assembly line without being able to move out. That is a horrible thing to happen. But that is one of the facts of the situation and there is no use blaming anybody about it. There is, in fact, a tremendous difficulty created by the wholly ill-balanced nature of our present industrial apparatus. There are so many bits and pieces that we have to import. Here in the State of Andhra Pradesh, for instance, there is a factory of which I have knowledge, which requires a certain piece of electrical apparatus for generating power, and power is required in order to supplement the Government supply. Now the particular machine has been in use for the last 35 years against its normal life of 15 years. It has been patched up time and again. Two years ago, the factory applied to the Import Control Authorities for a licence for Rs. 35.000 (only thirty five thousand rupees) for getting this vital machinery and they were told that the position was very difficult and would they apply again in the next year? Of course the cynic would say that the machinery does not wait before it cracks up in deference to the wishes of the import control authorities. On the other hand, it is a fact that import control authorities are operating virtually on a shoe-string. When a year afterwards the application was repeated, they were told "Well, will you look into one of the other countries — the rupee payment countries — and see if you can get there?" The factory is still without this part and last year, against a total capital cost of Rs. 35,000/- in foreign exchange which was required, the factory actually spent Rs. 50,000 just in patching the thing up and I know the Chief Engineer goes to bed every night thanking God for having spared this factory during the day and when he gets up, the first thing he does is to pray to the Almighty that the machine will not let him down during the next 24 hours.

I mention this to illustrate that we have to temper the criticism of what is happening in our country by a knowledge of

the enormous difficulties that Government are facing, mainly the acute scarcity of foreign exchange, the fact that our industrial apparatus is very imbalanced, and in most sectors vital things require to be imported at present. We have also great scarcity of technicians at various levels. Now, all this is perfectly true and we have to recognise and admit this: and indeed, as I said earlier, perhaps fair answers to the problems raised in the paper circulated before the seminar could be found in these difficulties. But to find an alibi is all right only up to a point. But to go from this point and come to the conclusion that nothing is possible and all we can do is just shrug our shoulders is really to take the line of least resistance.

I am quite convinced that even within the limitations that are imposed on us by the facts of the situation which I have described, a great deal more can be done and the reason why we are not able to do that is that there is a tremendous degree of inertia in the entire administration from top to bottom. It is not moving as fast as is required by the situation. This is quite dangerous. this lack of responsiveness on the part of the administration to the needs of the day. I remember preparing a paper about three years ago on the subject "Community Development and co-operatives". This paper was read before the Indian Society of Agricultural Economics. The point that I made in the paper is valid today. The point was this: that during the British regime they established an administration which was fully adequate for the limited purpose they had had in mind as a Government. The target they had set before themselves was to run this country from the point of view of maintaining law and order, and collecting taxes and letting the people live their lives as they liked. Now, this is an extremely limited purpose but for that purpose it was an excellent administration. The lightest wish expressed by the Viceroy and Governor General in Delhi was in fact transmitted to the lowest point of the ladder. It moved down to the smallest little village in the country and was carried out. Now after Independence, we decided to enlarge immensely the scope of the task before the administration. The administrator should deal not merely with maintaining peace and collecting taxes; he has to take an enormous amount of initiative in the problem of development. There were various developmental councils assuming various names and forms — Panchayats, Zilla Parishads and all sorts of things, and Community Development projects. In fact, every variety of scheme has been tried out and is being tried out in different parts of the country. The task of the Collector is now unimaginably more complex than it was in British days.

Now, in this paper I pointed out that according to a team which had come from the U.N. at our request and which consisted of people who were not hostile to India but were, in fact, extremely friendly to India, the finding was that there was an enormous gap between what was propounded at the top and what happened at the bottom. The Prime Minister made the most moving exhortations to the people and circulars issued by the State Governments were absolutely unexceptionable. But things did not quite move. There were clogs in the whole machinery of communication with the result that the performance did not catch up with the wishes and demands at the top. I do not remember all the picturesque language which those people used, but I remember reading the other day Churchill's memoirs. And some of you who have read those memoirs will remember that the last sentence of his first volume is this: "Facts are better than dreams". Now what, according to the U.N.'s team was the main trouble, was that in the Community Development Programmes and Co-operatives Programmes in our country the people at the top were dreaming but somehow or other, as the dream started getting translated into reality at each stage something happened till, finally, at the grass roots level at the village, very little of real substance happened. And, since then, we have been fumbling, trying to improve things, trying to see whether the new experiements will succeed if the old ones failed, trying to see whether decentralisation, for instance, of authority to the Zilla Parishads and so on will do the trick: and there has been a considerable amount of knowledge acquired. But, I am afraid, no real progress has been achieved since then.

It is in a situation like this that we have been suddenly faced with this crisis imposed by the Chinese invasion of our northern

frontiers. And it does look to those who have had a great deal to do with the Government machinery, both in the Centre and in the States, that the machinery has not proved adequate to this task. It is clogged with a great deal of red-tape. It moves extremely slowly. It is not that the people are not hard-worked. I know, for instance, that my old friends and colleagues who are in Delhi are dedicated people. They are people who work from morning till night and they have nothing except the interests of the country at heart. They work on Saturdays, they work on Sundays, they work on holidays and they work from morning till night, and some of them are breaking down in health. But the fact of the matter is that things are not moving. There is something in the whole machinery which has showed the whole pace down. Again I recall something which Churchill wrote before the capture of Norwick, a scheme of which he was exceptionally proud but which was a disastrous failure in the event. Sir Winston Churchill could be savagely sarcastic when he wants to be. Now, talking about what happened in the meeting at Whitehall about his proposal for the capture of Norwick, he says "There was a copious flow of polite conversation. (He is talking of interministerial meetings). There was a copious flow of polite conversation at the end of which a tactful report was drawn up by the Secretary in attendance and checked by the three Service Departments to make sure that there were no discrepancies. Thus we had arrived at those broad, happy uplands where everything is settled for the greatest good of the greatest number, by the commonsense of most, after the consideration of all. But in a war of the kind we were now to face the conditions were unfortunately different. The actual conflict had to be more or less like one ruffian batting the other on the snout with a club, a hammer, or something even better". I am afraid that the way certain problems are dealt with today in various Governments, they are still moving around in those broad happy uplands.

Now I want, at this point, to make something absolutely clear. I was myself part of this machinery and I have no doubt that if I had been in Delhi I would myself have been reacting in the same way as others have been reacting whom I have left behind there. I would have worked from morning till night; I

would have worked on Sundays and holidays: I would have written voluminous notes and attended numerous meetings; but at the end of that, nothing much would have happened. So, it is not personal criticism of any officer or any Minister but it is an attempt to analyse the whole situation in time and find out what is wrong. I do not want to give examples but I have several in mind which show that there is a shocking amount of delay in reaching decisions.

This friend of mine, about whom I told you, who was in charge of the Air-craft production told me, when I asked him the question, that they had absolutely no difficulty in England from finance or audit, for instance. He told me that all that happened was that they were asked to produce such and such a thing — mosquito bombers or Spitfires. He gave an estimate. The estimate was provisionally accepted. There was they were asked to go ahead; delay and ments were made on the basis of those estimates. six months, sometimes after twelve months, sometimes after two years, the Cost Accountants of the Ministry of Air-craft Production were sent round to the factory and in a liesurely way examined all the books and then came to the conclusion that either there had been over-payment or under-payment, or overpayment in some sections and under-payment in others, and sorted the whole thing out. But the point was, there was absolutely no delay in production. He went even further. "You see. we had a very dynamic Minister in charge, namely Lord Beaverbrooke". Incidentally Beaverbrooke may not go down in history as a great newspaper magnate, but he will go down in British history as an extremely successful Minister of Aircraft Production. And his men told him that on one occasion when they had to have a certain quantity of aluminium, that it was located by the officers at some point, Beaverbrooke said "Take it and use it". When somebody in his Secretariat said "We are not sure to which Ministry it belongs", Beaverbrooke exploded. He used some very strong language and said he wanted a report within two hours whether the thing had been lifted and put into the factory: and it was done. Well, if a thing like that happened here, there might be enquiries afterwards!

A friend of mine told me the other day that in order to get certain samples of what is required, he went upto Delhi and met the Brigadier in charge. And he said "The Brigadier couldn't have been nicer: he couldn't have been more friendly or more quick: and in my presence he telephoned to a certain ordnance factory and said "I want these samples to be sent by air freight tonight to this place to reach so and so tomorrow morning". Well, 12 days after that, he was still waiting for those samples. Now, what is the reason for this state of affairs even in an emergency which could be a calamitous emergency? It was calamitous last November, even now it is not quite known why the Chinese withdrew when they did. But they were in a position within a few days to seal up the whole of Assam, to destroy the oilfields or to occupy the oilfields and cause a most shattering state of affairs in our country. It was a miracle that they took the decision that they did and it is not quite known what is going to happen now. But the Chinese have been very clever. They have got exactly what they wanted. They are occupying portions of Ladakh which they wanted to. The Indian army is not in the posts which it formerly occupied and we are in no position to regain them without enormously strengthening our forces. In the Chinese have succeeded in creating the meanwhile. in the country a certain feeling of complacency and I think there have been statements now and then made the effect that perhaps there may not be a serious situation after all, perhaps the thing will be all settled peacefully by negotiations and so forth. But the situation is still one of great seriousness and the question is why the administrative machinery, instead of moving fast, instead of taking risks, is still clogged with poutine and red-tape and slowly building safeguards in rules and regulations.

Now, this seems to me a fundamental problem — not a mere question of why there is not enough being done in Hyderabad or some other place, such as Madras. The more fundamental problem before the country is "cannot something be done to deal with this?". My own view about this has been that this is one sector to which our Governments have not paid adequate attention ever since 1947. But there has been a feeling that mere

exhortations will do the trick and the issue of circulars will the trick: that if a wish is expressed, it will be carried out. But not enough attention has been paid at all levels-from the highest to the lowest-to see that the administrative machinery is really geared up so that all parts of it are immediately responsibe to the push of the button from the top. And there are certain reasons which have led to the situation. The proper functioning of an administrative apparatus is not a mere matter of organisation and methods: it is dependent on a proper working relationship between the entire body of Government officials and the Ministers. If it is possible for the Ministers to give the civil servant the feeling that provided they do an honest job of work, mistakes will not be lashed against them; that good work will be recognised and if a mistake happens now and then there won't be any enquiry. I think a tremendous improvement could take place. But at the moment what is happening is that people are nervous: people wonder whether they can take risks. They do not know what will happen if they take a risk and the risk does not pay off. Then, of course, there is parliament. It is not only a question of the Minister and the Government servant: It is also the question of the Parliament versus the Minister and the Civil Servant. And if Farliament takes up the position that no one can make a mistake without questioning the bonafides of the person concerned, then of course there will be no progress. Everybody will play for safety. Everybody tries to build up a series of alibis so that in case some question is asked, he at least is safe. So the question is one of profound change in the psychology both of Parliament as well as political Ministers, as well as, I rerget to say, the Government servants themselves.

I do not take the view that this is a matter in which we should blame politicians solely—although some of them are to blame. There is such a thing as a pride of work on the part of civil servants: there is a such a thing as a conscience; there is such a thing as the right to integrity, to make oneself heard, to explain frankly what one feels. I think the history of the last few years has demonstrated that not all civil servants by which, again, I mean the whole body of Government servants not all of them have measured up to the

standard. Quite a number of them have taken the line of least resistance. If they feel that a certain line is likely to be what is going to be palatable to the Ministers, well, they take that line or put forward arguments to support it. So it is a question of re-orientation of attitudes on the parts of not only the Parliament, and the Ministers, but also on the part of the civil servants themselves. Now, once a new balance is struck - namely the bonafides of the civil servants is not automatically quessomething goes wrong, and the Minister is tioned because prepared to support him and Parliament is prepared to take a reasonable view of things and not lash out at every mistake that happened in the field of public administration, well, I am pretty certain that a new arena in our administration will develop and we can build up a machinery that will be responsive not merely to the task of development but also to the task of any emergency that suddenly develops. If we do not do that, merely concentrating attention on just little bits and pieces of problems will not really get us anywhere.

Gentlemen, there are two other points which I should like to mention. The first is this: that, in a time of emergency like the one we are going through, it is particularly important that Government do not experiment in the fiscal field on ideological grounds. We have been rather caught up in a difficult situation at the moment. We are trying to develop our economy what are described as socialist lines. This seems to be quite unexceptionable, if it means giving a chance to the underdog, if it means giving an opportunity to the poorer sections of the community to bring themselves up. Whether you call it socialism or whether you call it by any other name makes no difference. This is an approach to which no one can possibly take exception. But, in our anxiety to emphasize what we call the socialist aspects of development, it seems to me necessary that in a time of emergency, we must have certain priorities at the back of our minds and not let a particular dogma or ideology dictate our policy. The question must always be: 'Is this the time for this experiment?': 'To give just one example, take the Super Profits Tax Bill. I am happy to note that there are indications that the Government are prepared to modify the measures of this Bill. The point that I am making is, there was no occasion for a measure like this which has created such a tremendous amount of tension. It has created a great deal of trouble in the capital markets of the country. It has put the stock exchange completely out of gear. It has created a great deal of rethinking on the part of a number of foreign enterpreneurs as to whether India is the right country in which they should put their money. Now, all this was completely unnecessary at this stage, for the simple reason that what was essential was to raise some revenue, and there are other perfectly sound means of raising these revenues without creating all these doubts and confusion in the minds of the people today.

If Government would like to make a contribution to the business of raising production in industry, during this time of emergency, I would appeal to them "For Heaven's sake, keep off, for the time being, from purely ideological changes, particularly in a highly sensitive field like fiscal legislation".

The last thing I want to say is this: and this goes back to my earlier statement that I am happy to be here principally in my capacity as Chairman of the National Productivity Council. I have been there only for less than two months, but I have already seen one or two things which suggest that the temper of the country is right if only the right leadership is given. I will give you an example of what I have in mind. I always like to go back to concrete examples rather than sail in more ethereal spheres. There is, for instance, the Bharat Electronics in Bangalore. They have received a very large order for making all types of equipment required for the defence forces and their difficulty was that they had not got enough technicians. They could nct quickly train the technicians to operate their machines in the machine shop and in the tool room. So they approached the National Productivity Council and we deputed an American expert and an Indian expert to see what could be done. They discovered that there were machines in the tool room and some machines in the machine shop which were not working between midnight and 6.30 in the morning. They decided that they would

have what they called a 'crash programme' of training people to operate these machines in a very short period. The normal process of educating the trainees takes two years. They said "In three months we will produce people who are not all-round experts in the tool room or machine shop, who cannot operate all the machines there, but we will produce people who can operate this grinding machine or this milling machine or this lathe and do a really good job". "Moreover", they said, "while they are being trained, we will not give them toys or specimens to work on. We will employ them on the things required for the factory in the ordinary course". In other words, at the 11.00 o'clock shift, the trainees just took over from the previous operators who are regular employees of the factory, and were producing jobs for the factory. Now, this is a tremendous risk for the factory because some of the machines are very high precision instruments and the question which the factory had to consider was whether they could entrust these high precision tools to complete novices, although they were under the guidance of a couple of enthusiastic experts. They decided to take the risk. The first batch was of some 45 young boys. I went so see them the other day. These boys were so keen that although their shift started at eleven, they were there half an hour earlier just waiting to punch in their cards. And in six weeks, their work has been so good that the rejection of their work has come down to one percent which is the same level as that of the regular operators in the factory. I saw on the blackboard that they have a theoretical lecture at 3.00 o'clock and another theoretical lecture at 4-30 in the morning. The whole shift operates from eleven at night to 6-30 in the morning. Theory classes are held during this time: they operate on the machines during this time. And the thing is now running so smoothly that they virtually operate as a third shift. will be taken off when the four-month period is over and been absorbed in the factory; and a new batch of 45 to 50 young boys will be selected.

Now, the reason why I mention these examples is this: If you had adopted what may be called a traditional approach to the problem, you would have come to the conclusion that it is just foolishness to entrust very high precision machinery costing

tens of thousands of rupees to untrained boys. But it has been done and it has paid on. I have not accepted the results of this scheme merely from the teachers. I went and saw the management of the factory and they are equally enthusiastic about this. It is quite possible that the success of this experiment is entirely due to the particular leadership, and possibly other leaders, less good, might have failed. In fact, the Deputy General Manager told me that but for this particular team, he would not have agreed to this scheme. It again illustrates the point that I have been trying to make, that what is required to gear up the administrative machinery is really effective leadership.

For various reasons, of historical character largely, our political leaders, who have been brought up in a time of revolution have not had the time or, I imagine, the inclination, to devote their time and attention and energy to the very prosaic iob of gearing up their administrative machinery. It would take years and years. If you read the memoirs published by the early British administrators, for example, in the time of Mountstuart Elphinstone who took over administration from the Peshwas during the early part of the 19th century, you will be fascinated and surprised at the enormous amount of attention that the top administrators paid in the old Bombay state to the details of administration and to perfecting both the mechanics and the human relations. As I said, for historical reasons our leaders have not had the time for this. Immediately after Independence we had all this horrible business of refugees moving back and forth. Then we have had various other difficulties created in our country for one reason or the other - Kashmir, linguistic distribution of provinces, the troubles with Pakistan, the troubles with China, with the result that the administration had really not had the time to settle down. But it must settle down if it has got to do a job, and the sooner we do it the better. In my opinion, that is the main problem of the country, and to solve it requires effective leadership at all three levels, the Parliament, the Ministers, and the Civil servants.

CHAPTER III

POWER, WATER AND LAND

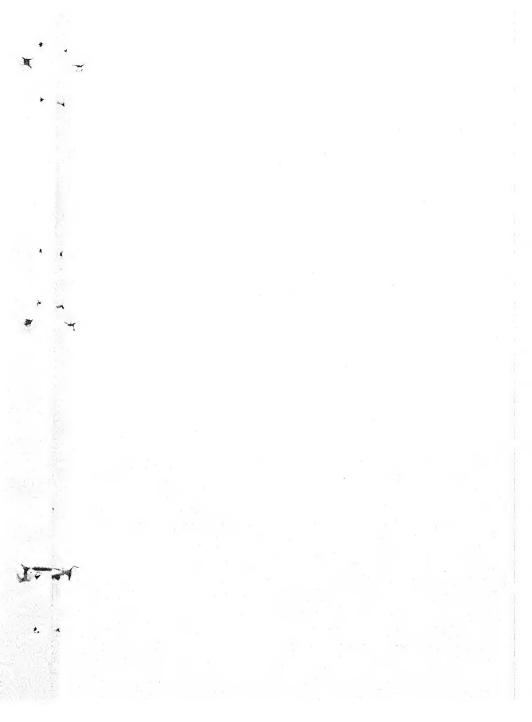
(i) Introductory Remarks by the Rapporteur

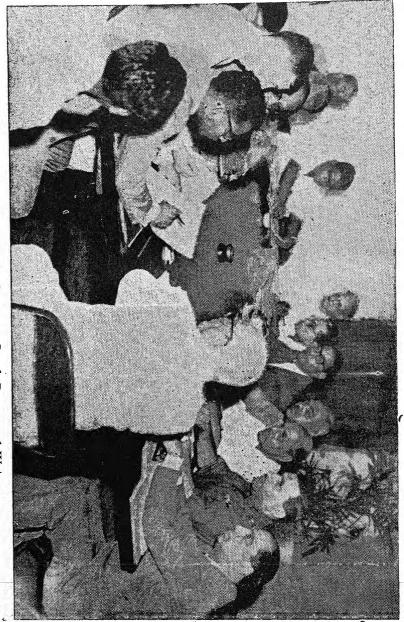
The Group decided that though these three subjects of *Power*, *Water and Land* were closely inter-related, they might profitably be taken up one after another for detailed discussion.

The Power position of the Andhra Pradesh State, with special reference to availability of power for industries, led to an interesting debate. All the representatives of industries including the public sector industries were very critical of the power planning in the State of Andhra Pradesh. The arguments clearly showed that no careful projection of power requirements year-wise has been made to form the basis of planning. The argument of the officials connected with the power development in the State was mostly that the calculation of requirements was made but could not be of any real value on account of the difficulties obtaining the allotment for implementing necessary extent of fullfiling the anticipated schemes the demand for power. Several members of the felt that the accent on Hydel power in our State in all our Plans, in spite of the availability of coal in abundance within the State was a mistake. Some members felt that even the available power is not being utilised properly as the transmission losses were on the high side and staggering of loads was not being undertaken to the extent done in certain neighbouring States. Though certain members felt that the cost of power generation was high and could be reduced by more efficient management, the general feeling of the members of the Group was that the need of the industries was power at any cost and that before considering the question of power rates, we should concentrate more on power generation. Some members felt that we should get a greater share of available power in neighbouring States on account of Centrally-aided Projects like the Neyveli. The representatives of the Government on the Group were more or less in agreement with the general opinion on most of the issues but they were of the view that the only solution to all the problems of power was the provision of adequate funds and by giving the necessary funds, the official representatives, felt that the problem of power could be completely resolved.

Land: The representatives, of the industries on the Study Group had interesting instances to relate of the protracted land acquisition proceedings. Many of them felt that the recent amendment of the Land Acquisition Act by the Government of India and the Rules which they were proposing to make under the Act would make the land acquisition proceedings further protracted. The general feeling was that the land for industrial areas were going up in value mainly because of the activities of the speculators and unless the Government came to the aid of industries in getting suitable land, industrial progress cannot be as rapid as anticipated in our Plans. The representatives of the State Government indicated that the State Government had very little to do with the Amendment Act and as the Parliament had decided that the Amendment Act should provide for safeguards against the agricultural lands being unnecessarily taken up for industries, there was very little chance of the character of the amendment being changed at this stage.

The Members of the Study Group were generally of the view that the problem of water was not being given adequate consideration. In fact, even in industrially well advanced . cities, there was no long-range planning for water supply which was resulting in serious water difficulties to industries. The provision of water to industries could be tackled successfully only if there was careful planning of industrial areas around major cities. Certain members were very critical of the lack of co-ordination between the Government and the Municipal authorities in the matter of provision of water. The general feeling of the Study Group was that the problems of water supply were not very difficult ones and could be resolved with some amount of co-ordinated effort and advance planning on the part of the Government and Municipal authorities, Water Works Department and the industrialists. The Committee also discussed the specific water problems to industrial areas around Hyderabad, Visakhapatnam and Vijayawada





Discussions at the Study Group on Land, Power and Water.

(ii) Report of the Seminar on Power, Water and Land.

Chairman: Sri L. Venkata Krishna Iyer, I.S.E.,

Rapporteur: Sri T. L. Sankar, I.A.S.

Power:

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The discussions of the Committee revealed that the power position was not very satisfactory in our State. The power generation capacity now available in the State is about 231 MW for the Second Plan Period. There has been no increase in the generating capacity in the past 8 years. The Committee appreciated that the difficulties in achieving the target of power generation were mostly due to inter-State water disputes which were beyond the powers of the State Government to resolve. The anticipated power requirements by the end of III Plan period are over 500 MW for which the plans of power generation of 591 MW for the Third Plan period are the minimum required. It was felt that even this minimum target of 591 MW cannot be achieved unless the resources made available by the State Government for power generation are increased by about Rs. 30 crores over the present provision of about Rs. 68 crores. The Committee therefore recommended strongly the increasing of provision for Power in the Third Plan immediately to Rs. 98 crores.

2. The Committee noted that the present demand of power which is about 70 MW in excess of the generating capacity in the peak hours and recommended that this should be overcome by staggering of loads and by immediate installation of the proposed 2 Gas Turbo sets of capacity of 10 MW each. It was felt that there are great possibilities of the demand going up sharply in the near future on account of Defence industries to be set up here. It could be safely assumed that of the various Defence industries to be set up in the country, a few would be located in Andhra Pradesh if only adequate power could be supplied. The Committee felt that immediate meaning from the country and the country are supplied. The committee felt that immediate meaning from the country and the country are supplied. The committee felt that immediate meaning from the country are supplied to the country are supplied. The committee felt that immediate meaning from the country are supplied to the country and the country are supplied to the country are supplie

foreign exchange difficulties, the Committee made the recommendation as it feels that but for this additional power being available Andhra Pradesh State will not be in a position to help in industrial mobilisation for Defence.

- 3. The Committee felt that generation capacity in neighbouring States should also be tapped to make good the shortages in our State. The neighbouring State of Madras has availed itself of extra power from our State when we had surplus power and it was therefore appropriate that it should make available some power, say of the order of 10 MWs immediately to our State.
- 4. As long-term measures for tackling this problem power in our State, the Committee felt that the current difficulties should be taken as object lessons and bold planning should be made for fulfilling our future requirements. The year-wise demand of power should be carefully forecast with reference to prospective industries and other needs and the plans drawn up to meet not only these needs but also to provide sufficient cushion to meet unanticipated demands. In the overall planning, powergeneration should be given top most priority and sufficient funds should be made available even at the cost of other sectors suffering as power is fundamental to all development. As the cost of power generation is of the order of Rs. 1,000/- to Rs. 1,400/per KW whereas the cost of creating power consumption capacity in industry is of the order of Rs. 3,000/- to Rs. 10,000/- per KW., the Committee felt that it would be a national waste to put up industries and not work them or under-work them on account of power shortage. Electricity Department should therefore not only get forecasts of power requirements but also keep close watch over the stages of erection of industries so that there is no idle capacity either in power-generation or power-consumption. The Committee fully appreciated the time element in increasing the power generation capacity. Unless the programmes are drawn up three years in advance it will not be possible to achieve the targets in time. Immediately one of the easy methods of providing against power shortages at the beginning of the Fourth Plan would be to take steps to order the machinery for 2 more

turbines of 60 MW capacity to be added on to the Kothagudem Thermal Station.

- 5. The Committee also felt that the power losses and transmission losses are rather high in our State, being about 26 per cent, and efforts should be made immediately to reduce it. To augment our meagre power resources, it was suggested that Neyveli, being a Central Project, should give a share of the power produced there to our State.
- 6. The discussions revealed that, apart from these factors, much of the difficulties in the Power sector are on account of sufficient resources not being made available and on account of the procedural delays in the Central Water and Power Commission and the foreign exchange clearance agencies. The Committee felt that at least during the present National Emergency efforts should be made to make available funds sufficiently in advance and also to take steps to cut short the procedures. One of the ways would be to make available the necessary foreign exchange component immediately on clearance of the Project by the CWPC and setting no time-limit to the validity to the foreign exchange permit.
- 7. The Electricity Board is insisting now on the industrialists providing the annual minimum guarantee and the voluntary contributions towards the bulk load distribution costs. It was felt that as industries are being set up in this State against big odds, the insistence on these payments would further retard the growth of industries and as such they should be waived at least for the time being.

WATER:

8. It was felt that the problem of providing water to indus tries has not been given adequate attention even at this stage For example, around the city, industries are proposed to be se up in places like Moulali, Uppal, Faluknuma etc. Even thoug certain industrialists have been given land by way of acquisit or alienation in these areas and various steps have been made give them the required power, no thought has so far been gi to the provision of water supply to these industries. Even

provide water will made to take to be arrangements unless arrangements made are and considerable time ' shortage problem would deveimmediately, water grave around Hyderabad around industries The Committee recommended the formation of an Inter-Departmental Committee to assess demands of water for various industrial areas around the city and other major industrial areas in the states like Visakhapatnam. Vijayawada etc. After the requirements are assessed plans should be drawn up and funds be made available without delay. The rough estimate discussed at the Committee revealed that Manjira first stage woud not be able to meet the industrial water requirements other than those of Heavy Electricals, Synthetic Drugs and Defence authorities. The Committee therefore recommended that arrangements should be made immediately for taking up the second stage of Manjira.

- 9. It was felt that the projection should be made of water requirements in industrial areas especially around the city for the 20 years to come and pipe lines should be laid to provide for the ultimate demand.
- 10. The Committee felt that the provision of land, water and power should be dealt with in a comprehensive way and recommended the formation of a Committee consisting of the officers of the departments concerned and selected industrialists which would meet frequently and at fixed intervals to assess the needs of the industries and to review the progress made.

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11. The Committee felt that the Land Acquisition Act of 1962 has made land acquisition procedure very difficult for land acquisition for companies. According to the present Act, land acquisition cannot be taken up for Private Companies unless they are Government Companies. For Public Limited Companies the provision cannot be invoked unless there is danger to life or property. The land acquisition by normal procedures have become further protracted on account of the new proposed procedures of acting through a Land Acquisition Board and getting a declaration

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from the Agriculture Department about the land to be acquired being non-agriculural etc. The possibilities now are that either the Land Acquisition Act should be amended in the present context of National Emergency or the Government should acquire and keep ready lands in advance so that the Companies need not go through the protracted procedures of land acquisition. The Committee felt that that the Amendments of the Act would be difficult and recommended the adoption of the second course. Committee recommended the setting up of Rs. one crore as Revolving Fund for Land Development for industries. With this fund about 500 acres of land would be acquired in each of the 20 districts at an average cost of about Rs. 1,000 per acre. It was felt that these lands for acquisition should be chosen after careful consideration in places where power, water and transport facilities are already available. Government land should be chosen wherever possible. These lands should be acquired or alienated and water and power should be made available at the periphery. The rough lay out plans could also be prepared and kept ready but the task of levelling and laying arterial roads could not be left to the prospective industrialists. The area to be acquired in each district would also vary with the industrial potentialities of the district. The land should be made available to prospective industrialists on collection of the cost of land, cost of acquisition and the proportionate cost of amenities provided plus an interest at the rate of 6% from the date of Government incurring expenditure to the date of sale. The amounts in the revolving fund could be used for further acquisition. This way an initial cutlay of a crore of rupees is expected to take care of provision of land for all times.

CHAPTER IV

RAW MATERIALS, FUEL AND TRANSPORT

(i) Introductory Remarks by the Rapporteur

The members of the Group which examined the problems pertaining to Raw Materials, Fuel and Transport in relation to Industrial Development, consisted of Government Officials, representatives of Industries, Colliery Suppliers, Cement Marketing Company besides officers from Regional Research Laboratory. Small Industries Service Institute, and Central Railway. The concensus of opinion was that the Group should primarly discuss the problems of such raw materials which are either in short supply or are likely to be in short supply in the immediate future, in the country. Some members, however, felt that introduction of control on the distribution of any raw material prematurely would invariably aggravate the position rather than help and ease the situation. They cited introduction of control on cement as an example and some members felt that the present acute scarcity conditions are more a result of introduction of control rather than real shortage.

There was a strong feeling among many members that growth of industries based on scarce raw materials should be effectively regulated by the imposition of a total ban, if necessary, on setting up of industries by opportunists, which, in real practice, contribute to idle capacity rather than increase in national wealth. The members also felt that the existing resources in the State such as agricultural, forest and mineral, were not being fully exploited for industrial purposes. The members were unanimously of the view that a Planning and Development Cell be created immediately in the Directorate of Industries and Commerce to promote industries utilising the existing resources and to regulate the growth of industries based on scarce raw materials. The members felt that such a Cell, staffed by competent specialists, when created could fruitfully guide entrepreneurs in setting up industries in new lines of manufacture.

While discussing the problems of Pig Iron, many emphasised the need to procure larger allocations from the Government of India, if Foundry and Machine Tool Industries should develop in the State. Some members stressed the need to overcome the shortage by taking recourse to such measures as substitution of materials to the extent possible, use of inferior grades by mixing suitable alloying materials etc. In view of the acute shortage of hard coke, some members expressed that release of hard coke may be corelated in relation to the quality of Pig Iron released, while others stressed that due account be taken of the Pig iron procured by the firms on their own efforts at higher rates in addition to the quantity released from the state quota, while alloting hard coke.

With regard to steel, members were of the unanimous view that overcentralisation of powers with the Iron and Steel Controller had adversely affected the actual supply and that some system of apportionment of capacities and linking up of producers to states must be devised in the case of scarce categories such as thinner guage sheets and wire atleast, if the actual deliveries should improve.

There was considerable criticism about import of large quantities of stainless steel sheets for the manufacture of utensils either directly or in the guise of hospital equipment at the cost of other steel-based industries. The members felt that import of stainless steel should be isolated i.e., it should be met from a separate allocation made for it and not from the overall allocation made to Mild Steel items.

With regard to coke and coal, some members felt that the distribution of these materials is adversely affected by over-centralisation of power with the Coal Controller, while others differed from this view. It was however felt that the Wagon Allotment Officer at Hyderabad needs to be equipped with greater powers.

(ii) Report of the Seminar on

Raw Materials, Fuel and Transport.

Chairman: Shri N. K. Guruswamy, I.A.S.

Rapporteur: Shri K. C. Rao.

The members of the group confined their discussions to such raw materials, which are either in short supply or are likely to be in short supply in the country. It is considered that when raw materials are in short supply and particularly in an emergency when large quantities are diverted for Defence requirements, there is bound to be considerable price difference between the controlled rate and open market rate, in spite of best efforts to peg the prices down. This would naturally attract a large number of opportunists to set up industries involving the use of such scarce materials. The Group, therefore, feels that unless Government controls the growth of such industries and takes firm decisions, it would be difficult to arrest such fortutious growth, which would contribute more to the idle capacity rather than increase the National Wealth. The group also felt that planning of industries be done more effectively so as to exploit fully the resources in the State. It is, therefore, suggested that:

- (1) A Planning and Development Cell be created in the Directorate of Industries and Commerce to promote the growth of industries fully exploiting the resources in the State, and to regulate the growth of industries based on scarce raw materials. The staff of the Directorate may be adequately strengthened for this purpose and specialists appointed in various fields such as Electrical, Chemical, Metellurgical etc;
- (2) the Planning and Development Cell will collect complete data of installed capacities of industries in the

small scale sector and the statistics relating to production every half year;

- (3) the new industrial units requiring scarce raw materials, which could not be allotted to the extent of even 50% of requirements to existing units, should be banned altogether unless the industry is one which has a Defence or Export orientation or one such as to have a bearing on the economy of the State or one which would develop allied lines of industries;
- (4) a list of priorities indicating quantums of preferential allotments for different categories of industries may be drawn up in each period for the purpose of allocating scarce raw materials. The Development Cell may coopt a few members from the private industry to assist the Cell in performing this task; and
- (5) a vigilance section be attached to this Cell for the purpose of making surprise checks to ensure proper utilisation of material. Cases of misuse detected should be dealt with firmly so as to serve as a strong deterrent to other units.

The group then took up for discussion the following important raw materials.

Pig Iron:

This is a vital raw material on which the growth of foundries and allied engineering industries depend. The distribution control has been introduced on this material by the Iron and Steel Controller from 1-1-1963 and the annual quotas fixed to different states. The annual quota fixed in the case of Andhra Pradesh is about 2500 tons as against 7000 to 8000 tons per year consumed hitherto.

The Group, therefore, suggests that selective use of the available material is very important and recommends that:

(1) the distribution may be regulated through the Government Raw Material Depots set up in the State;

- (2) the release of material should be on the basis of performance in 1960-61 when the material was freely available; and
- (3) use of lower grade pig iron as well as larger percentage of cast iron scrap be encouraged by addition of suitable alloying materials such as Ferro-silicon etc. so as to conserve standard grade pig iron for specialised castings.

The Government of India should ensure actual deliveries of material to the extent of quota fixed every quarter atleast, by making good the shortfall in the following month.

Indigenous Steel:

Among the various categories of indigenous steel, scarcity exists in thinner gauge sheets and wire though the latter has been brought under the relaxed categories. It has been found that the allocation of these scarce categories, which comes to 25% of the demand, largely remains on paper and the actual deliveries work out to about 15 to 20% of the allocation. The group therefore suggests that it is necessary to ensure actual deliveries to the extent of 90 to 100% of the quantities allocated and for this purpose recommends that:

- (1) different states or regions may be linked up with certain producers and capacities apportioned to the States so that the producer may uninterruptedly despatch the material to the concerned state to the extent of apportionment of capacity. The entire distribution within the State can be taken up either by the Government Raw Material Depots or association of stockists;
- (2) the powers vested with the Iron and Steel Controller may be decentralised so that the regional offices may undertake the allocation of capacities and watch despatches as the Iron and Steel Controller's office has become so unwieldy that even High Priority indents are not planned for years together;

- (3) billets may be supplied to re-rolling mills in States far away from Steel plants to the fullest extent of capacity to avoid scarcity periods due to transport bottlenecks of finished material and easing the pressure on railways due to double transport *i.e.* once for the billets and for a second time for the finished produces; and
- (4) a whole time liasion officer of Andhra Pradesh Government be kept at Calcutta to follow up with the Iron and Steel Controller and get the planning of indents of Government and private industrialists as the office of the Iron and Steel Controller does not respond to correspondence. The extra cost will be more than compensated by the increased output in the State, consequent on receipt of larger quantities of material against indents.

Imported Steel:

Government of India allot foreign exchange ceiling to each State for every half year within which the requirements of imported steel by all actual users in the small scale sector have to be limited. In view of the need to conserve foreign exchange, the import of stainless steel sheets has been banned by the Government of India for the manufacture of utensils and this material is allowed only for the manufacture of items such as hospital equipment etc. It is suggested that the requirements of hospital equipment for the country may be assessed and the quantity required may be imported through the State Trading Corporation in bulk and distributed to the States rather than giving direct import licences which are more often misused for manufacture of utensils. Strict vigilance should, however, be ensured so that the material released by the State Trading Corporation may not be misused for the manufacture of utensils. This, it is hoped, will isolate the requirements of hospital equipment from the general foreign exchange ceiling and limits its overall import to assessed requirements of the country, as at present the quantities imported are increasing period after period at the expense of other categories of industries.

Other Imported Raw Marerials:

Government of India have not been actually granting import licences for raw materials to new industrial units in view of the emergency unless they are Defence or Export oriented. It is suggested that they may as well state the policy categorically in the Red Book so far as the new industries are concerned to prevent entrepreneurs from taking preliminary steps and getting negative replies in the end.

Non-ferrous Metals:

All the non-ferrous metals such as Copper, Zinc, Tin etc. excepting aluminium, are imported into the country. The need for the conservation of these materials for selective uses therefore needs no emphasis. It is suggested that

- (1) the use of brass for utensils be gradually reduced by substituting aluminium which is available indigenously;
- (2) the use of aluminium in place of copper in electrical industries for the manufacture of P.V.C. & V.I.R. Cables, overhead conductors etc. should be encouraged and Government may give a lead to private consumers by adopting the use of wires made of aluminium instead of copper; and
- (3) the semis such as brass rods, tubes etc. manufactured in large scale industries should be made available to all consumers in different states irrespective of the proximity of the former to the latter. For this purpose certain percentage of the production may be reserved for each State as there are many States where such semis' manufactures do not exist.

Coul and Coke:

In the matter of coal and coke it is found that the supplies are effected largely due to transport bottlenecks in the case of coal and shortages as well as the transport difficulties in the case of coke. The following suggestions are therefore made to improve the position:

- (1) the distribution of coal and coke is at present controlled completely by the Coal Controller at Calcutta as most of the production comes from the Bengal and Bihar Coal fields. There is a Wagon Allotment Officer at Hyderabad to control the movement of coal fields in Andhra Pradesh, but he is not equipped with adequate powers. It is felt that a Deputy Coal Controller may be appointed at Hyderabad to control the movement of coal of the outlying coal fields including Madhya Pradesh;
- (2) diversion of short distance traffic of coal by road to ease the pressure on rail transport;
- (3) the use of coke be conserved and non-ferrous foundries be advised to switchover to oil fired furnaces within a period of 6 to 9 months by giving them the necessary facilities and financial assistance;
- (4) the releases of coke be in proportion to the releases of pig iron in view of the fact that complete control has been brought on the latter; and
- (5) allotment of 28 wagons of coke per month to Andhra Pradesh which once stood at 50 wagons be increased as the requirements of the State are of the order of about 100 wagons per month and the cut effected in other States does not seem to bear a similar percentage. In any case an under-developed State like Andhra Pradesh where machine tool industry has yet to develop in full range should be given special consideration.

Cement:

It is felt that scarcity of cement is largely due to large drawals by Government Departments and Projects apart from the shortage in production, as the Government is the major consumer of the cement produced. The group, therefore, suggests that:

(a) Government may move their requirements of cement by road to avoid congestion on the rail traffic;



- (b) give complete facilities to the existing factories to produce to their fullest capacity by the provision of adequate power. If necessary they may be permitted to import generators of their own to ease the supply position of power; and
- (c) economise the use of cement in building construction by substituting lime for plastering, compound walls etc. and Government giving a lead by adopting such practices in its building programmes.

Cotton:

In view of the recent licensing of two lakhs spindles in Andhra Pradesh and the prospects of licensing of additional spindleage before long, intense efforts may be made for the production of suitable varieties of cotton in sufficient quantities within the State by the Agriculture Department.

Transport:

- (1) The Motor Vehicle Taxation and the rules governing the movement of transport vehicle between the States may be made on an All India basis rather than on a Statewise basis to avoid cumbursome procedure and formalities.
- (2) The roads and bridges on important National and State highways be improved so as to facilitate the movement of vehicle with trailers.
- (3) Transport by Buckingham Canal from Madras to Vijayawada, be increased by making improvements in the reach at Nellore.
- (4) Use of country craft for transport between minor ports be encouraged.
- (5) The formation of a separate railway zone for the Middle Eastern Region be expedited which would facilitate smooth movement of wagons in the different routes

of the State and take remedial measures to rectify the bottlenecks at key junctions.

Procurement of Defence Orders:

In view of the emergency and the increased requirement of Defence and the consequent diversion of raw materials for such Defence requirements, there is an acute shortage of scarce raw materials and the industrial units in the State are shut out from getting even reasonable quantities, leave alone for a full single shift. It is therefore imperative that the units in Andhra Pradesh do get a legitimate share of Defence orders if they are to function uninterruptedly and share the Defence efforts. The main Defence Stores Procuring Agency is the Director General, Supplies and Disposals, who issues tenders on an All India basis and places orders on the lowest tenderer. It is felt that in an emergency like this, when speedy supplies are essential and sharing of war effort by all regions of the country has its inspiring effect, decentralisation of the procurement of stores is necessary. These Stores Procuring Agencies have already furnished the items of stores required by them to different States. The following revised procedure is therefore suggested so as to achieve sharing of war effort by all regions in the country.

- (1) The Director General of Supplies and Disposals may apportion certain percentage of items or sub-assemblies required for the defence to each State at negotiated rates. The State in turn can sub-contract it to suitable industrial concerns and ensure satisfactory execution. For this purpose Andhra Pradesh Small Scale Industrial Development Corporation which is already functioning may take up this task.
- (2) The Director General of Supplies and Disposals should supply the required raw materials for the execution of such orders from the Central pool as otherwise it would be difficult to execute the orders at the negotiated rates.

It is felt that unless this is done, industrial units in certain areas may work for two shifts or more while similar units in other areas may altogether lie idle with the consequent ill-effects.

CHAPTER V

FINANCE AND MARKETING

(i) Introductory Remarks by the Rapporteur

The issue that came up for discussion at the outset in the Group was the adequacy or inadequacy of financial resources. The representatives of the State Corporations held that there was enough financial assistance available for industrialists, but use of that assistance was not proper. The dominant view was however that, when considered in the context of total requirements, the financial resources that the existing institutions provide for long-term financial assistance to industries were quite inadequate.

Having accepted that there was inadequacy of finance, the next step was to suggest ways and means of augmenting the same. Utilisation of finance was discussed at length as it was felt that whatever limited assistance was given was not always fully utilised for want of adequate planning by the enterpreneurs. Duplication of financial institutions catering to the needs of ndustry was another aspect which roused a good deal of discussion. It was accepted that duplication of efforts should be avoided by co-ordinating the activities of various financial institutions. Various suggestions for their co-ordination were offered, some of which went to the extent of suggesting the merger of all the institutions into one intergrated unit. However, ultimately it was thought that while the existing agencies should continue, their sphere should be clearly demarcated and duplication of effort avoided.

The cumbersome procedures for obtaining finance was another aspect which drew the pointed attention of the members and it was found that there was plenty of room for simplifying procedure for granting loans without jeopardising the safety of the funds.

Another important point that was discussed in the context of the financial resources at the disposal of the State was to what extent it was justified for the Government to block financial re-

sources in industry which falls within the sphere of private enterprise, as distinct from Government undertaking, when judged from the angle of the Industrial Policy Resolution. A detailed analysis of Government's interest in various industries compelled the Group to come to the conclusion that a large amount of financial resources could be released by government from the present investments in the existing Government units. Finances obtained by this release could be utilised for further investment in catalytic industries and the process would continue utilising the limited resources by starting a chain of industries instead of blocking the resources in a few industries. Here the role of the Government as promoter was accepted and that of an investor was given a secondary place. The Group recommended to the Government releasing their investment in the existing industries, with a view to divert them to new units.

P. L. BHANDARI.

(ii) Report of the Seminar on Finance and Marketing.

Chairman: Shri M. A. Abbasi, I.A.S.

Rapporteur: Shri P. L. Bhandari.

21 members participated, and the Group made the following recommendations on the points that emerged from the discussion.

Finance:

(1) The Group came to the conclusion that the financial resources that the State-sponsored financial institutions (Andhra Pradesh State Financial Corporation, Andhra Pradesh Small Scale Industrial Development Corporation, Andhra Pradesh Mining Development Corporation, State Aid to Industries Scheme and Khadi and Village Industries Commission) were inadequate to meet the existing and the prospective requirements of Industry in all the sectors.

The Group recommended that the Andhra Pradesh Industrial Development Corporation should approach the Finance Corporation (if necessary by amending, the Articles of Association) to reimburse its loans against advances to industries. Further, the Andhra Pradesh Industrial Development Corporation should enter the open money market to augment its financial resources, on the strength of a Government guarantee of a reasonable dividend and the principal to the subscribers.

- (2) The Group came to the conclusion that there was stringency of financial resources with the Commercial Banks, and this stringency was likely to increase with the latest Central Budget proposals, which would lead to the further shrinkage of deposits and consequently of the loans for advances to industries. To meet the situation, the Group recommends that the Reserve Bank be requested to reduce the statutory deposit limits by 5 per cent for the present.
- (3) The Group came to the conclusion that loans sanctioned to the Industries by some State Corporations were not utilised. The Group recommends that the reasons for such non-utilisation be analysed and in cases where there was no justification for non-utilisation of the sanctioned loans, deterrent action should be taken as such defaults deprived possible genuine industrialists of their chance of getting loans.
- (4) There was dearth of capital resources in the State when assessed in the context of its industrial potentiality. The Group therefore recommends that the State should take necessary action to attract capital from all over India for rapid industrial development.
- (5) After examining the efforts that are being made by the State Financial Corporation, Industrial Development Corporation, Small Scale Industrial Development Corporation, Mining Corporation and State Aid to Industries scheme, the Group came to the conclusion that there appear to be some duplication in efforts and therefore to this end, Government be requested to examine how far there is a duplication in effort in these institutions and what means be adopted to avoid such duplication.

Further, the Group came to the conclusion that there was room to simplify the procedure in regard to the sanctioning of financial assistance to industrialists so as to reduce delays to the minimum possible extent.

- (6) The Group found that it was necessary to popularise the details of the various facilities given by the existing State institutions for industrial finances. To this end, the Group recommends that the Information Department may be required to issue an Industrial Supplement to their monthly publication.
- (7) With a view to accord requisite priority to the industries directly serving the defence needs in the national emergency, the Central Government should clearly indicate the industries which are classified as defence industries and essential commodity industries. This classification is necessary to guide the various financial institutions to give priority to defence production.
- (8) The group found that there was discrimination in giving radvances by the State institutions to industries as between those situated in the Industrial Estates and those outside the Industrial Estates. In the case of former the margin was 25 percent, whereas in the case of the latter it was 50 percent. The Group recommends that there should be uniformity of treatment to the industries regardless of their location.
- (9) It was found that certain small scale industrialists have not furnished adequate data to leading institutions for securing guarantees from the Reserve Bank. The Group recommends that the Chambers of Commerce should circularise their members to co-operate with the financial institutions in their own interest by furnishing the requisite data to facilitate the guarantees from the Reserve Bank.
- (10) The Group found that there are industrial units run by the State. The Group recommends that those Government units in which Government need not be interested as a matter of policy, may be disposed of on reasonable terms, so that the proceeds obtained by these disposals may be made available for helping other industries.

- (a) It was felt that apart from the individual industrialists, companies which are getting financial assistance from Government and Governmental institutions, there is a large class of industries falling in Co-operative sector to which increasing financial aid is being made available. It was felt that the utilisation audit to ensure proper and economic utilisation of the funds made available to the various co-operative industries ranging from handpounding of rice industries to sugar factories should be made more efficient as there is criticism that the funds are not being utilised with adequate care.
 - (b) A suggestion was made that the question of making use of the financial aid to industries an effective tool in securing the social ends of industrial planning by such steps like giving concessions in interest rates to industries which are to be located in backward areas and which are engaged in the production of essential consumer articles to cheap rates or the production of certain basic industrial material like pig iron, where the margin of profit is not high, should be examined by the Government.

MARKETING

- (11) The Group came to the conclusion that marketing was not a problem so far as the defence requirements were concerned, as firm orders are placed by the Director General, Supplies and Disposals. However, there are certain problems which can be solved on the basis of the recommendations made below:
 - (a) The Group came to the conclusion that the Andhra-Pradesh Small Scale Industrial Development Corporation should register itself with the Director-General, Supplies and Disposals, may participate in submitting tenders and procuring bulk orders which may be contracted to different industrial units.
 - (b) The Defence Department should be requested to Open an office in the State Capital, where the specification of various defence requirements will be readily available to the industrialists in the State.

- (12) The Group found that considerable delays take place in the Government paying the bills after despatch of the goods. These bills are normally discounted by the Banks, but because of considerable delay the Banks' limits get exhausted and further financial facility is not available to the industrialists. The Group recommends that the Government should advance 90% against R.R. and inspection notes or against delivery.
- (13) The Banking interests observed that the Government reserved the right to appropriate amounts due from such suppliers to square up any claims that the Government may have against them. The Banks under such circumstances, feel reluctant to provide advance facilities against such bills. The Group recommends that the Government may retain 20% under such circumstances and pay 80% to the Banks.

CHAPTER VI

TECHNICAL SKILL AND PRODUCTIVITY

(i) Introductory Remarks by the Rapporteur.

The tone and trend of the discussion clearly displayed the difference between the time frame of this subject compared to the other three.

No simple reallocation could improve technical skill or productivity — with very few exceptions mentioned in the report. The, developments discussed by this group had almost exclusively longer term significance. At the same time the industrial members of the group often found it difficult to sustain discussion on these longer term issues well, as they were beset by current shortages of power, raw materials and so on which were outside the purview of this group's topic. Perhaps it was largely this factor which led to the occasional prevalence in the discussion of an atmosphere of discouragement, as if nothing much in any field of endeavour was likely to be achieved.

Another noteworthy feature of the discussion was the little attention given by the group to labour legislation and the productivity of workers. It is possible that the absence of representation from labour organisations was sufficient explanation for this lack. To the industrial members of the group, labour legislation was mostly a restrictive factor which called for some amendment in the light of the Emergency.

The most sustained discussion took place on the question of drawing industrial and technical education bodies closer together. There was striking agreement between representatives of industrial and technical education bodies, both on the need for this development and on the serious current trend in the opposite direction. Under the heading of Technical Education the group put forward its largest number of recommendations as well as the most specific. The recommendations ranged from interchanging staff

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between training institutions and industrial units and increasing industrial opportunities for trainees to gain more practical experiences, to the formal substantial representation of industry on academic councils of engineering colleges. The whole important area of ensuring that technical training be intensively practical and that Diploma holders and Graduates would then also be able to find suitable employment in industry upon completing their training seemed very ready for immediate action.

R. P. LYNTON.

(ii) Report of the Seminar on Technical Skill and Productivity.

Chairman: ... Shri K. I. Vidyasagar, I.A.S.

Rapporteur: ... Shri Rolf P. Lynton.

The discussion covered three main areas:

- 1. Technical assistance services;
- 2. Technical education, and
- 3. The productivity of workers.

To make more practical recommendations, attempts were made to sort out in each area the short-term from the longer term recommendations. But short-term considerations were for the most part overshadowed by the prevailing acute shortages of raw material and power and by such basic problems as inadequate standardisation in manufacturing designs and processess. As these were subjects for discussion in other groups, they will not be mentioned further in this report. This report will confine itself to listing, first, the few short-term recommendations, and then turn to the more substantial longer-term ones under each head.

For ready reference the 12 recommendations are numbered right through.

A. The Short-term:

The pressing problem is the fuller utilisation of existing machinery and other resources already in industrial units. Many units operate at less than half their capacity; if two shifts were considered normal, less than 25%. In as far as this underemployment of resources is not due to material and power shortages, two recommendations are made:

- (1) Existing technical assistance services of the Central and. State Governments should be employed more than they are now on intensive work in a few selected units instead of an inducing new units to start or giving brief advice to a large number of units. Better production planning, or, even more so, shifting over to a new product, can only be assisted by a concentrated effort.
- (2) Specially organised training courses are urgently needed to train all levels of management in work study and to train supervisors in all relevant aspects of management.

B. The Longer-term:

This term did not at all imply less urgency, only delayed results.

Technical Assistance Services:

"Technical" was here used in the wider sense of "professional", and included professional advice on costing, marketing and other management subjects as much as on technology.

- (3) Both intensive and extensive services are required. To ensure that the services were available to potential entrepreneurs disinclined to make the first move to get these services, or not knowing about them, the present organisations, should have adequate staff and funds for publicising their activities.
- (4) Field staff might be organised on the same lines as insurance agents, getting a commission, say, on the first Year's

income of a new unit. Alternatively, if they were on full time official salaries, their effort might be rewarded by extra increments or by arrangements similar to those now used by the Council for Scientific and Industrial Research for patented inventions.

But the problem of providing adequate incentives seems basically intractable within a Government organisation. The problem is not the inability of industry to pay for advisory services it needs, but rather at the receiving and of receiving the fees and so distributing them that they provide an incentive to the officers engaged in the activity without upsetting officials engaged on other kinds of work.

(5) A non-Governmental or semi-Governmental organisation is therefore needed, perhaps in each State, which is able to offer advice by full-time experienced staff on "technological, financial and procedural problems". It would charge fees. It needs Government backing so as to have strong standing vis-a-vis the licencing and material distributing agencies and to speed up all procedures relating to industrial development. Perhaps the existing Industrial Development Corporation could be remodeled on this basis. The Andhra Pradesh Government may want to study the recent establishment in Bihar of a semi-Governmental organisation for this purpose or the District Development Boards proposed to be started by the Government of Maharashtra.

Technical Education:

While training institutions in Andhra Pradesh now release every year 1,000 engineers, 2,000 diploma holders, and 3,000 skilled craftsmen — a very rapid increase over earlier years, complaints continue to be serious on account of both quantity and quality. These are interdependent in as much as industry looks for experienced technicians which the institutions cannot provide, and so remains unsatisfied. Except for one, our recommendations address the problem from the quality end.

The key problem seems to be the complete divorce of training institutions from industrial units. Industrialists do not seem to be consulted in the construction of syllabi. Where industrial advisory Committees exist, they do not seem to function. The interchange of industrial with technical education personnel which was common practice 30 years ago seems now even to be forbidden. The result is a disastrous separation of theory (in institutions) and practice (in industry).

The required training can be divided into three essential elements and the task divided between training institutions and industry in succession but in co-operation. Technical knowledge can be imparted in the institutions. Skill, which is the sum of experience, can be gained in industry. Thirdly comes the attitude to continue to learn, which will also come in industry, though it should be at least implied already in the institutions. To allow this specialisation to be practiced, training institutions and industry need to co-operate very closely.

This would be promoted by accepting the following recommendations:

- (6) Interchange of staff between institutions and industrial units, for several months at a time. Teaching would then also be practical, and industry would gain from the basic conceptual understanding of the academically-oriented engineer. The same principal should hold within those training institutions, like I.T.I's., which now seek to impart both theoretical and practical training but use quite separate staffs for the purpose.
- (7) Qualifications should await set periods of actual work experience in industry, in no case less than a year. This is the opposite to the relationship now in Andhra Pradesh between the practically trained Associate of the Institution of Mechaincal Engineers and the B.E.; the fresh B.E. enjoys all advantages in official recruitment.
- (8) Industry needs to provide opportunities for this practical experience, as it is already required to do under the new Appren-

ticeship Act. Perhaps similar legislation is required to cover diploma holders and graduates.

Post-examination industrial tours are no substitute for fulltime experience. During termtime, weekly visits to industrial units should be arranged followed by class assignments, like essays, which require the students to pay careful attention. Several industrial organisations and the National Productivity Council are willing to offer prizes for good essays.

- (9) If training institutions concentrate on imparting technical knowledge it is likely that the length of the courses could be greatly reduced, from as much as two years to six months, according to the trade. This would certainly be possible to give quick relief to particularly acute shortages of specialised skills. As a result of shortening the courses, the number of "graduates" would be greatly increased without adding to existing facilities. The wartime experience of foreign countries can be consulted for relevant experience.
- (10) Industry needs to be strongly represented on the academic councils of engineering colleges and dorment industrial advisory bodies be reactivated.

The Productivity of Workers:

Government activity in this field needs to be extra heavy as long as trade unions and other workers' organisations are too weak to concern themselves with questions of productivity and with educating their members in the light of this understanding.

(12) Our general recommendation is that both Government and industry do all in their power to help in this process of growth and maturation.

ANNEXURE I

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION, ANDHRA PRADESH REGIONAL BRANCH, HYDERABAD.

Programme of the Seminar on "The Role of the Government in Industrial Mobilisation for National Defence"

Venue of the Seminar:

Jubilee Hall, Public Gardens, Hyderabad-Dn. Telephone No. 32145.

Date for the Seminar:

Saturday 13th and Sunday 14th April 1963.

Programme of the Seminar:

Saturday 13th April, 1963-9-30 to 11 a.m.

- (a) Introduction of the activities of the R. B. I. I. P. A. and and the Study Group by the Chairman, Mr. M. P. Pai, I.C.S., Chief Secretary.
- (b) Inauguration by Shri H. V. R. Iyengar, I.C.S., (Retd.) Chairman, National Productivity Council.
- (c) Speech by Dr. M. N. Lakshminarasiah, Minister for Industries, Andhra Pradesh.
- (d) Presidential Remarks by General Shrinagesh, Governor of Andhra Pradesh.
- (e) Vote of thanks by the Secretary, Shri V. K. Bawa, I.A.S., Collector, Hyderabad.

11-00 to 11-30 a.m. TEA.

11-30 to 1-15 p.m. Group Discussion.

Group No. 1. Power, Water and Land:

Chairman: Shri L. Venkatakrishna Ayyar, Administrator, Public Works Department, Govt. of Andhra Pradesh.

Rapporteur: Shri T. L. Sankar, Dy. Secretary, Industries Dept., Govt. of Andhra Pradesh.

Papers for discussion:

- (1) Policy of Andhra Pradesh Government on 'Power' by Shri S. A. Quader, I.A.S., Secretary, P.W.D., Govt. of Andhra Pradesh.
- (2) Power, Water and Land by Shri B. K. Nehru, Chairman, Vazir Sultan Tobacco Company Ltd., Hyderabad.

Group No. II. Raw Material, Fuel and Transport:

Chairman: Shri N. K. Guruswamy, I.A.S., Managing Director, Singareni Collieries, Hyderabad.

Rapporteur: Shri K. C. Rao, Industrial Engineer, Govt. of Andhra Pradesh.

Papers for discussion:

- (1) Policy of Andhra Pradesh Government on Raw Material, Fuel and Transport by Shri Syed Ali, I.A.S., Secretary. Industries Department, Government of Andhra Pradesh.
- (2) Raw Material, Fuel and Transport by Shri Rama Rao Macherla.

Group No. III. Finance and Marketing:

Chairman: Shri M. A. Abbasi, I.A.S., Secretary, Finance Department, Andhra Pradesh.

Rapporteur: Shri P. L. Bhandari, Secretary, Sirpur Paper Mills and Silsilk, Ltd., Hyderabad.

Papers for discussion:

- (1) Policy of Andhra Pradesh Government on Finance and Marketing by Shri B. L. Oates, I.A.S., Director of Industries and Commerce.
- (2) Finance and Marketing by Shri Satya Dev, General Manager, State Bank of Hyderabad.

Group No. IV. Technical skill and Productivity:

Chairman: Shri K. I. Vidyasagar, I.A.S., Secretary, Project Department, Govt. of Andhra Pradesh.

Rapporteur: Shri R. P. Lynton, Ford Foundation Consultant, Small Industries Extension Training Institute, Hyderabad.

Papers for discussion:

- (1) Policy of Andhra Pradesh Government on Technical Education by Shri C. V. D. Moothy, Director, Technical Education, Govt. of Andhra Pradesh.
- (2) Policy of Andhra Pradesh Government on Productivity by Shri E. V. Ram Reddy, I.A.S., Labour Commissioner,
- (3) Technical Skill and Productivity by Shri P. Narasiah, Director, Small Industries Service Institute.
- 1-15 p.m. to 2-30 p.m. LUNCH By the Govt. of Andhra Pradesh.
 - 2-30 to 5-00 p.m. Group Discussions.

SUNDAY THE 14th APRIL, 1963.

Reports of the Group discussions will be cyclostyled and will be distributed by 9-00 a.m. for study by the Members.

1-00 to 2-30 p.m. Lunch by the Federation of Andhra
Pradesh Chamber of Commerce and
Industry.

2-30 to 5-00 p.m. Plenary Session.

5-00 to 5-15 p.m. Tea.

5-15 to 5-45 p.m. Closing remarks by Chairman, Shri M. P. Pai, I.C.S.

ANNEXURE II

LIST OF PARTICIPANTS.

I. POWER, WATER & LAND.

Chairman:

Shri L. Venkatakrishna Iyer, Irrigation Adviser and Consulting Engineer, Government of Andhra Pradesh, Hyderabad.

Rapporteur:

Shri T. L. Sankar, I.A.S., Deputy Secretary, Industries, Government of Andhra Pradesh, Hyderabad.

Other Members:

Shri M. P. Pai, I.C.S., Chief Secretary, Government of Andhra Pradesh, Hyderabad.

Shri S. A. Quader, Chief Engineer, Electricity, Government of Andhra Pradesh, Hyderabad-4.

Shri S. A. Quader, I.A.S., Secretary to Govt. Public Works Dept., Andhra Pradesh, Hyderabad.

Shri V. Parvathesam, Superintending Engineer, Telengana Circle, Electricity Dept., Andhra Pradesh, Hyderabad. Power Water & Land (contd.)

Shri J. P. L. Gwynn, I.C.S., Member, Board of Revenue, Hyderabad.

Shri V. K. Bawa, I.A.S., Collector, Hyderabad.

Shri Nizamuddin, Dy. Director of Industries, Hyderabad.

Shri K. Vaidyanathan, Dy. General Manager, Jay Engineering Works Ltd., Balanagar, Hyderabad.

Shri K. V. Srinivasan, Project Administrator (Synthetic Drugs), Gandhi Bhavan, Hyderabad.

Shri Rama Rao, Project Engineer, Heavy Electricals, Hyderabad.

Shri Malla Reddy, Chief Engineer, Irrigation Dept., Hyderabad.

Shri N. B. Prasad, Andhra Sugars, Hyderabad.

Shri S. Ramachar, Vice-Chairman, Andhra Bank, Ltd., Hyderabad.

Shri P. S. Rau, I.C.S., (Retd), Chairman, Barium Chemicals Ltd., Hyderabad.

II. RAW MATERIALS, FUEL & TRANSPORT:

Chairman:

Shri N. K. Guruswamy, I.A.S., Operative Director, The Singareni Collieries Co. Ltd., Red Hills, Hyderabad.

Rapporteur:

Shri K. C. Rao, Industrial Engineer, Chirag Ali, Hyderabad.

Other Members:

Shri Rama Row Macherla, Biochemicals & Synthetic Products Ltd., Sanathnagar, Hyderabad.

Shri M. Sirajuddin, I.P. (Retd.)., Hyderabad.

Shri R. N. Haksar, Cement Marketing Co. of India Ltd., Secunderabad.

Shri P. T. Parekh, Agent for Coal, 151 Sappers Lane, Secunderabad.

Dr. Ziauddin Khan, Head of the Dept., of Public Administration, Osmania University, Hyderabad.

Dr. P. M. Bhargava, Regional Research Laboratories, Uppal Road, Hyderabad.

Shri Maudgil,
M/s. Karamchand Thappar Coal (Sales) Ltd.
Kingsway, Secunderabad.

Dr. Stuart Holden, Small Industries Service Institute, Yousufguda, Hyderabad.

Shri V. P. Rama Rao, Chief Executive Officer, A.P. Road Transport Corporation, Hyderabad.

Shri Vasudev Naik, Dy. Speaker, A.P. Legislative Assembly, Hyderabad.

III. FINANCE & MARKETING:

Chairman:

Shri M. A. Abbasi, I.A.S., Finance Secretary, Government of Andhra Pradesh, Hyderabad.

Rapporteur:

Shri P. L. Bhandari, The Sirpur Paper Mills Ltd. & The Sirsilk Ltd., Hyderabad.

Other Members:

Shri Humayun Yar Khan, I.A.S., Managing Director, Andhra Pradesh State Financial Corpn., Hyderabad.

Shri T. G. V. Naidu, Managing Partner, T.H. Gangappa & Sons, Hyderabad. Shri P. A. DeVitre, Chief Agent, Central Bank of India, Hyderabad.

Shri J. Jayarama Rao, Inspector General of Registration & Stamps, Government of Andhra Pradesh, Hyderabad.

Shri M. R. Pai, I.A.S., General Manager, Andhra Paper Mills, Hyderabad.

Shri K. M. Nanjappa, Principal, State Bank of India Staff College, Jubilee Hills, Hyderabad.

Shri P. L. Sivaram, I.A.S., Director, Central Stores Purchase Dept., Government of Andhra Pradesh, Hyderabad.

Shri R. Vithal Rao, I.A.S., Operative Director, Nizam Sugar Factory Ltd., Hyderabad.

Shri Sirajuddin Babu Khan, Mahatma Gandhi Road, Secunderabad.

Shri Jaichand Lohade, c/o Federation of A.P. Chambers of Commerce & Industry, Hyderabad. Shri Narendra Luther, I.A.S., Director, Information and Public Relations, Government of Andhra Pradesh, Hyderabad.

Shri Latif, T.A.A.,
Small Industries Extension Training Inst.,
Yusufguda, Hydreabad.

IV. TECHNICAL SKILL & PRODUCTIVITY:

Chairman:

Shri K. I. Vidyasagar, I.A.S., Secretary to Govt., Projects Dept., Hyderabad.

Rapporteur:

Mr. Rolf P. Lynton, Small Industries Extension Training Institute, Yusufguda, Hyderabad.

Other Members:

Shri D. P. Agarwal, Hyderabad Allwyn Metal Works Ltd., Sanathnagar, Hyderabad.

Shri E. V. Ram Reddy, I.A.S., Labour Commissioner, Andhra Pradesh., Hyderabad.

Shri A. Ramamoorthy, The Hyderabad Chemicals & Fertilizers Ltd., Bashirbaugh, Hyderabad.

Shri T. R. Dass, Jt. Director, Technical Education, Hyderabad. Shri Narasimha Raju, Chief Inspector of Factories, Government of Andhra Pradesh, Hyderabad-4.

Dr. J. E. Stepanek, Small Industries Extension Training Institute, Yusufguda, Hyderabad.

Shri Amrit Barua. Administrative Staff College, Hyderabad.

Shri V. R. Reddy, Krishi Engines, Hyderabad.

Shri S. F. Balasubramanyam, I.A.S., Dy. Secretary to Government, G.A.D. Andhra Pradesh, Hyderabad.

Shri D. Rangaramanujam, Director, Bureau of Economics & Statistics. Hyderabad.

Annexure III

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION

1. Aims of the Indian Institute of Public Administration

The aims of the Indian Institute of Public Administration as stated in the Memorandum of Association and Rules of the I.I.P.A., New Delhi are:

- (i) to promote and provide for the study of public administration and economic and political science, with special reference to public administration and the machinery of Government and for educational purposes incidental thereto;
- (ii) to undertake, organise and facilitate study courses, conferences and lectures and research in matters relating to public administration and the machinery of government;
- (iii) to undertake and provide for the publication of a journal and of research papers and books to impart training in and promote study of public administration.
- (iv) to establish and maintain libraries and information services to facilitate the study of public administration and spreading information in regard thereto;
- (v) to constitute or cause to be constituted Regional Branches at convenient centres in India to promote the objects of the Society;
- (vi) to co-operate with approved institutions and bodies for the purposes of helping the cause of public administration.

II. Activities of the R.B.I.I.P.A., Andhra Pradesh:

The Regional Branch was inaugurated by Shri Bhimsen Sachar, Governor of Andhra Pradesh on 25-9-1959. The rules of business of the Regional Branch were drafted by a committee with General Shrinagesh, then Principal, Administrative Staff College of India, as Chairman.

During the first year of its work, i.e., 1959-60, the Regional Branch arranged lectures by Prof. J. W. L. Adams, Professor of the Administrative Staff College, Henley, and Prof. M. Ruthnaswamy, Retd. Vice-Chancellor, Annamalai University. Three Study Groups were formed and discussed the topics allotted to them.

The Branch took up the preparation of two monographs (i) on the Government and Administration of Andhra Pradesh and (ii) on District Administration in Andhra Pradesh. The members of the Branch made use of the Secretariat Library. 67 members were enrolled by 31-3-1960.

During the second year of its work, 1960-61, the Branch appointed a sub-committee which made detailed recommendations for the Administrative Reforms Committee of the Government of Andhra Pradesh. The Branch organised lectures by Pro. A. W. M. Eaten, Prof. Emeritus of Public Administration, Columbia University, Shri M. P. Pai, Shri S. V. Ayyar and Sir Henry Self.

Shri T. L. Sankar, I.A.S., prepared a factual paper on Revenue Boards and Divisional Commissioners for the Central Institute at the request of the Regional Branch. The Chairman of the Branch attended a Seminar on the subject 'Revenue Board and Divisional Commissioners' in Puri. The membership of the Branch at the end of the year was 67.

During the third year of the Regional Branch, 1961-62, the Regional Branch arranged lectures, by Prof. A. R. Towl, Prof. Eugene P. Dvorin, Shri Indarjit Singh and Shri R. L. Gupta.

The convenors of two of the three study groups appointed during the first year submitted their reports to the Executive Committee.

A Conference on 'The Changing Role of the District Officer' was conducted by the Regional Branch under the auspices of the I.I.P.A., New Delhi, on 16th and 17th December, 1961. It was attended by representatives of almost all the States in India, the Director of the I.I.P.A., Prof. Menon, and several members of the Regional Branch. The membership of the Regional Branch at the end of the third year was 96.

During the fourth year, 1962-63, further progress was achieved in the following directions.

Lectures were delivered by Sir Noel Hall, Principal, Administrative Staff College, Henley, Prof. A. H. Hanson, of Cambridge University, and Mr. H. B. Bhar, Accountant General of Andhra Pradesh. A Sympasium was conducted on the subject 'Administrative Problems of Universities in India' at which Shri B. P. R. Vithan, Registrar, Osmania University and Justice Gopal Rao Ekbote spoke, and Shri P. V. Narsimha Rao, Minister for Information, presided.

A Research Project on the subject 'Relations between Departments and the Secretariat' based on actual cases contained in Secretariat and Departmental files was taken up by Shri Ram Reddy, Lecturer in Public Administration, Osmania University under the guidance of Shri M. R. Pai, I.A.S. It is expected to be completed during the year 1963-64.

A Study Group on 'The Role of Government in Industrial Mobilisation for National Defence' met regularly from December 1962 to March 1963, and prepared the ground for the Seminar on the same subject which is the subject matter of this Report.

III. Future Programme of Work of the R.B.I.I.P.A., Andhra Pradesh:

The Regional Branch is sponsoring three lectures by Prof. Raymond Pelissier, Director of the School of Business Administration, Georgetown University, Washington D. C.

The Regional Branch also expects to undertake the preparatory work for a Seminar on the 'Reorganisation of Governmental Machinery' to meet the needs of the National Emergency. The Seminar will be conducted in the early part of 1964, after intensive preparatory work, on the same lines as the Seminar now under report.

In order to undertake these activities the R.B.I.I.P.A. is setting up an office with a full time Secretary who will be accommodated along with the Library of the Institute in a central place.

The R.B.I.I.P.A. needs the support of all thoughtful citizens in its task of improving public administration in the state, in order to enable it to meet the needs of the country at this critical time. For this purpose the Regional Branch welcomes new members, including institutional members as well as the opening of Local Branches all over the state, which is permitted by the Constitution of the I.I.P.A., New Delhi.

The membership fee of the Indian Institute of Public Administration, New Delhi, is Rs. 25/- per annum, which includes membership of the Regional Branch. The following are eligible for admission as ordinary members of the Institute:

- (a) Any person who is or was employed in the Public Services;
- (b) Any person who is or was employed in the teaching or study of Public Administration or related subjects; or

(c) Any person, who in the opinion of the Executive Council, is actively interested or concerned in the practice or study of Public Administration.

The reader who wishes to be a member may enrol himself sa a member of the Institute by filling up an application form obtainable from the Secretary and sending it with a cheque/postal order/cash of Rs. 28/- (plus bank charges in case of cheques) to the SECRETARY, REGIONAL BRANCH. The cheque or Postal Order may kindly be drawn in favour of:

"SECRETARY, REGIONAL BRANCH, INDIAN INSTI-TUTE OF PUBLIC ADMINISTRATION, ANDHRA PRADESH c/o Chief Secretary, Government of Andhra Pradesh, Hyderabad.

As the Regional Branch felt that some are prevented from joining as members on account of the annual subcription being a little on the high side, it has been decided to enrol Associate Members of the Regional Branch on payment of an annual subscription of Rs. 6/-. This will entitle the member to attend the lectures, Seminars and other meetings convened by the Regional Branch but not to the membership of the Central Institute nor to the literature published by it. Those who are not able to enrol as members of the Central Institute, may enrol themselves as Associate Members of the Regional Branch and participate in its activities.

An Application Form for ordinary membership is attached. Enquiries regarding institutional membership and Local Branches should be addressed to the Secretary of the Regional Branch at the address given above.



